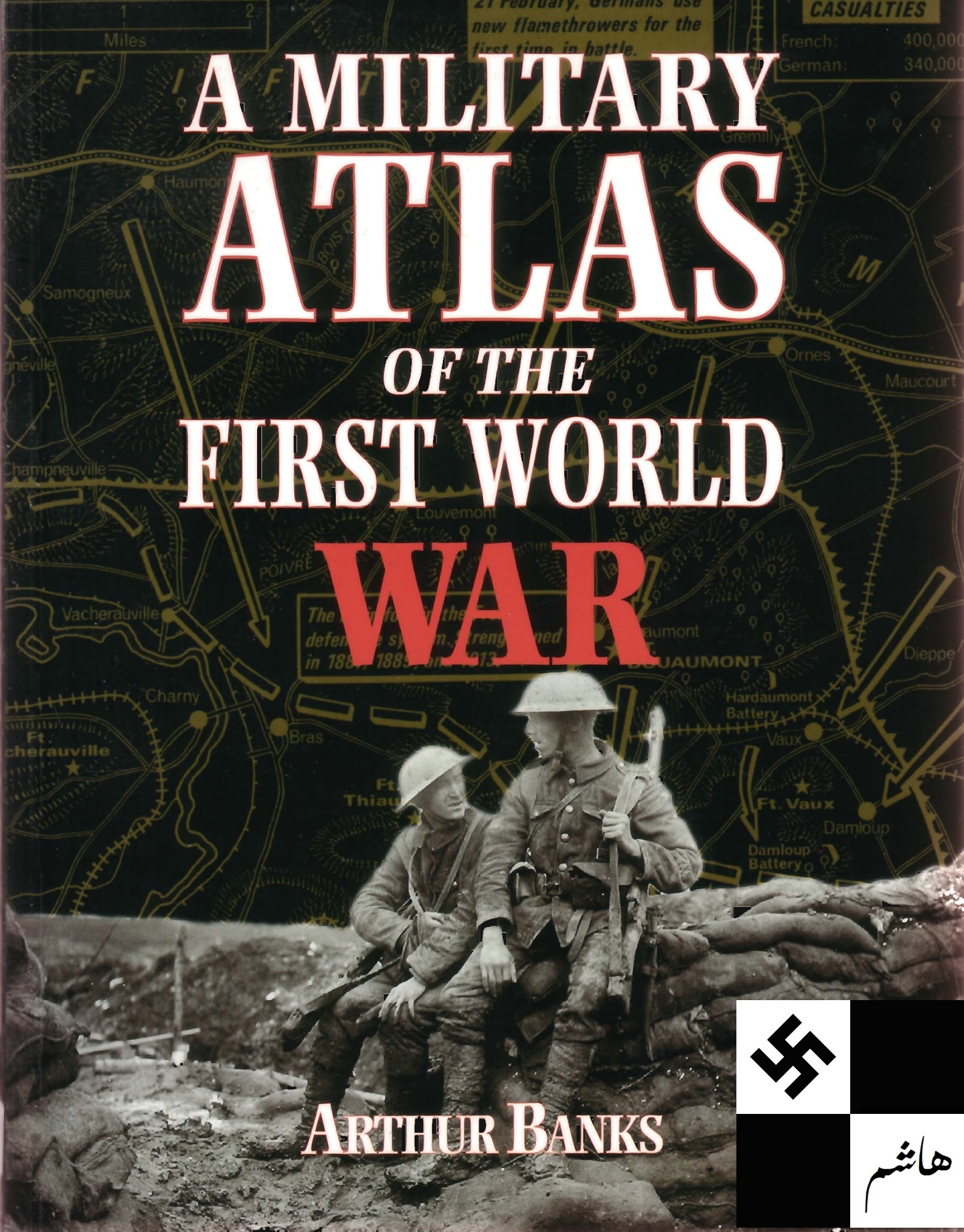
# A MILITARY ATLAS OF THE FIRST WORLD WAR




ARTHUR BANKS

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Arthur Banks

# A Military Atlas of the First World War

commentary by ALAN PALMER

LEO COOPER

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# PREFACE

It is now nearly a quarter of a century since I entered the specialised field of cartography and during that time I have been able to direct much of my effort into the fascinating, but technically complicated, area of military and historical map-production.

I soon discovered that the research material I needed was very widely scattered through many different libraries and military institutions and that much of my time would be spent in sifting through material and consulting veterans of past campaigns. At one time I longed to find some clear, reasonably-priced atlases of battles accompanied by succinct texts, tables, and diagrams. No such volumes seemed to exist, so far as I could discover. The idea of producing such an atlas myself took shape; from my researches and discussions with those who planned and took part in some of the actions I decided to compile my own cartographical record. This was the genesis of this present book.

In these times economy seems to dictate much that we do; therefore, my original plan to give detailed coverage to most of the important military campaigns has had to be modified. As a result, this book is necessarily briefer than the one I originally designed.

However, I hope that the book will be a convenient reference work which deals with those areas where a more detailed examination in cartographical terms has long been demanded.

Arthur Banks
1975

The original version of this atlas has been out-of-print for some years. Nevertheless, demand for it has been steadily increasing with so much media presentation of events in the First World War. Accordingly it has been decided to reprint the work to cater for all the various interests in the war that changed the future for so many millions of people.

1989

# ACKNOWLEDGEMENTS

During the research involved in the preparation of this atlas, I consulted some 1,300 historical reference works, examined and cross-checked 4,000 large- and small-scale maps (many of them of German or French origin), inspected several hundred technical manuals plus individual drawings, and attended numerous discussions with experts and veterans of the First World War.

Consequently, this must of necessity be a blanket appreciation of all those who were interested enough in my project to proffer advice and information in order to advance my work at various stages of the scheme.

In particular, I should like to thank General Sir James Marshall-Cornwall, Mr Michael Willis, and Mr Alan Palmer; all three went to enormous lengths to assist me and I am tremendously indebted to them.

In addition, the following persons deserve special mention and my gratitude: Dr R. Banks, Captain G. Bennett, Rear-Admiral P. Buckley, Captain L. Boswell, Captain E. Bush, Mrs J. Campbell, Miss R. Coombs, Major-General P. Essame, Miss S. Glover, Mr R. Holmes, Dr I. Nish, Mr V. Rigby, and Mr R. Welsh. Mr P. Richardson, Mr A. Hill, and Mr D. Heap of Heinemann Educational Books Limited extended endless encouragement and support to aid me in my task.

The librarians and staffs of the following organisations were generous in the facilities they placed at my disposal:

Imperial War Museum, Ministry of Defence, Royal Science Museum, Royal United Services Institute for Defence Studies, Royal Air Force Museum, H.M.S. *Vernon*, Hydrographic Department of the Admiralty, l'École Royale Militaire (Brussels), Turkish Naval Attaché's Office (London), United States Embassy (London), Belgian Embassy (London), and Surrey County Council Headquarters (Study and Information Department).

Finally, and above all, my wife deserves my deepest thanks: her devotion to my cause succoured me on so many occasions during the years of toil entailed in the research and preparation of this volume.

# BIBLIOGRAPHICAL NOTE

Owing to the enormity of the research involved, it has proved impossible to itemise every reference work consulted, and the author feels that it would be unfair to specify particular accounts for recommended reading. However, he states that an essential first step for the serious student is to inspect the various military, naval, and aerial official histories of the belligerent powers. Usually these can be obtained from a central reference library or inspected at museums and institutions which specialise in military history and warfare.

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# THE PRE-WAR SITUATION

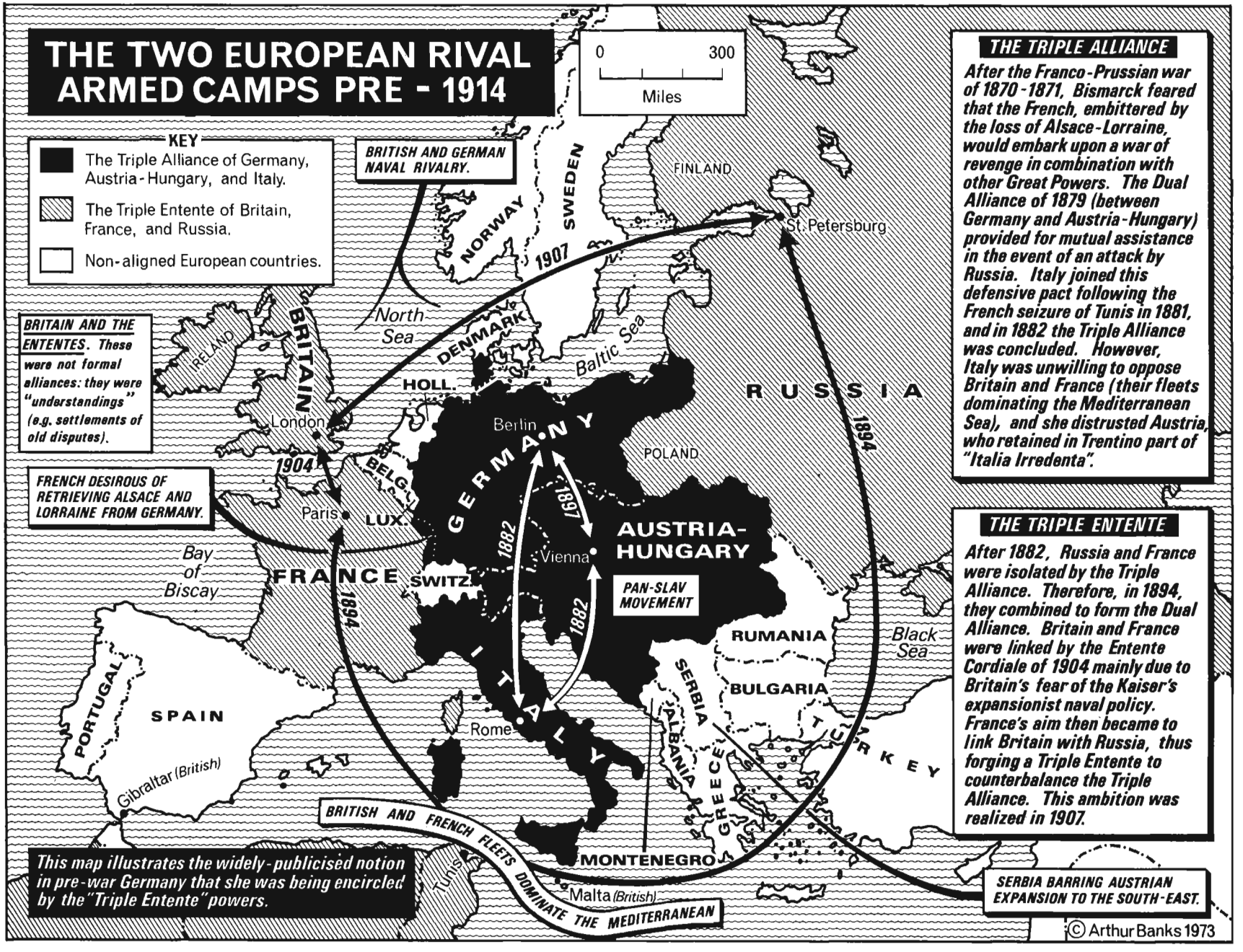
The coming of the Great War took the European peoples by surprise. In the spring of 1914 the nations of western and central Europe had been at peace with each other for forty-three years, a longer period free from conflict than ever before in their histories. Except in the south-eastern corner of the continent, where the Balkan peoples still sought complete independence from Turkish rule, frontiers had remained inviolate since the Franco-Prussian War. Two traditional battle cockpits, the Polish plains and the low-lying fields of Flanders, had escaped war not merely for forty years, but for a full century. Small wonder if the long European Peace lulled ordinary people into a false sense of security. Economists argued war was commercially so disruptive that no industrialised nation would resort to it; intellectuals maintained that international society was enlightened enough to scorn its folly.

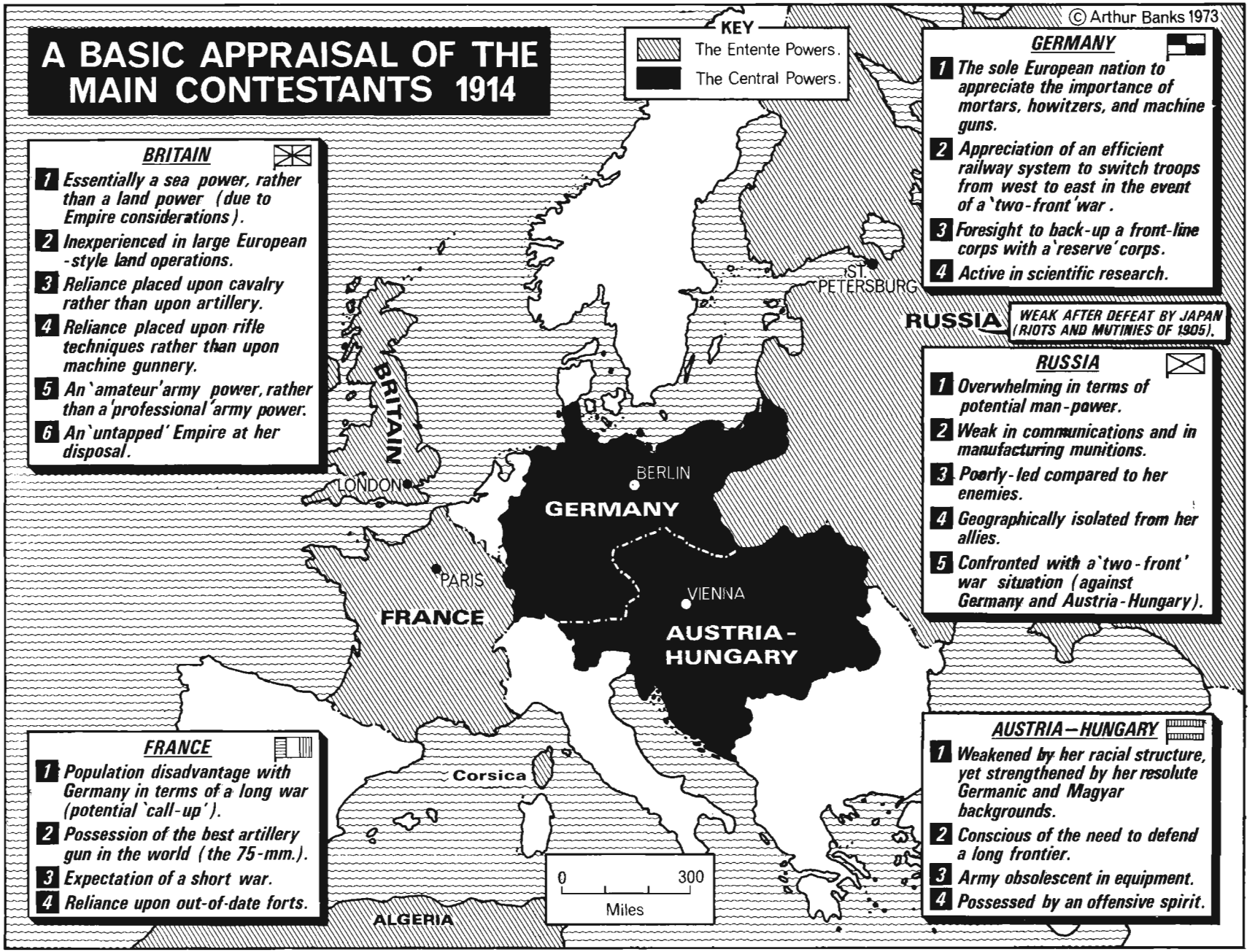
Statesmen and generals remained less sanguine. There had, after all, been colonial campaigns throughout the armed peace. By 1914 the army of every European Great Power, except Germany and Austria-Hungary, had already been engaged in fighting since the turn of the century. If colonial disputes had not led to a general conflict it was because, as yet, they had never affected the vital interests of more than two Great Power rivals at the same time; but potentially they were dangerous, as the Agadir Crisis showed in 1911. Moreover no one could ignore the significance of the arms race. Naval and military expenditure by the Great Powers doubled in the last twenty years of the nineteenth century; it doubled again in the first decade of the twentieth. Where could the arms race finish, if not on the battlefield?

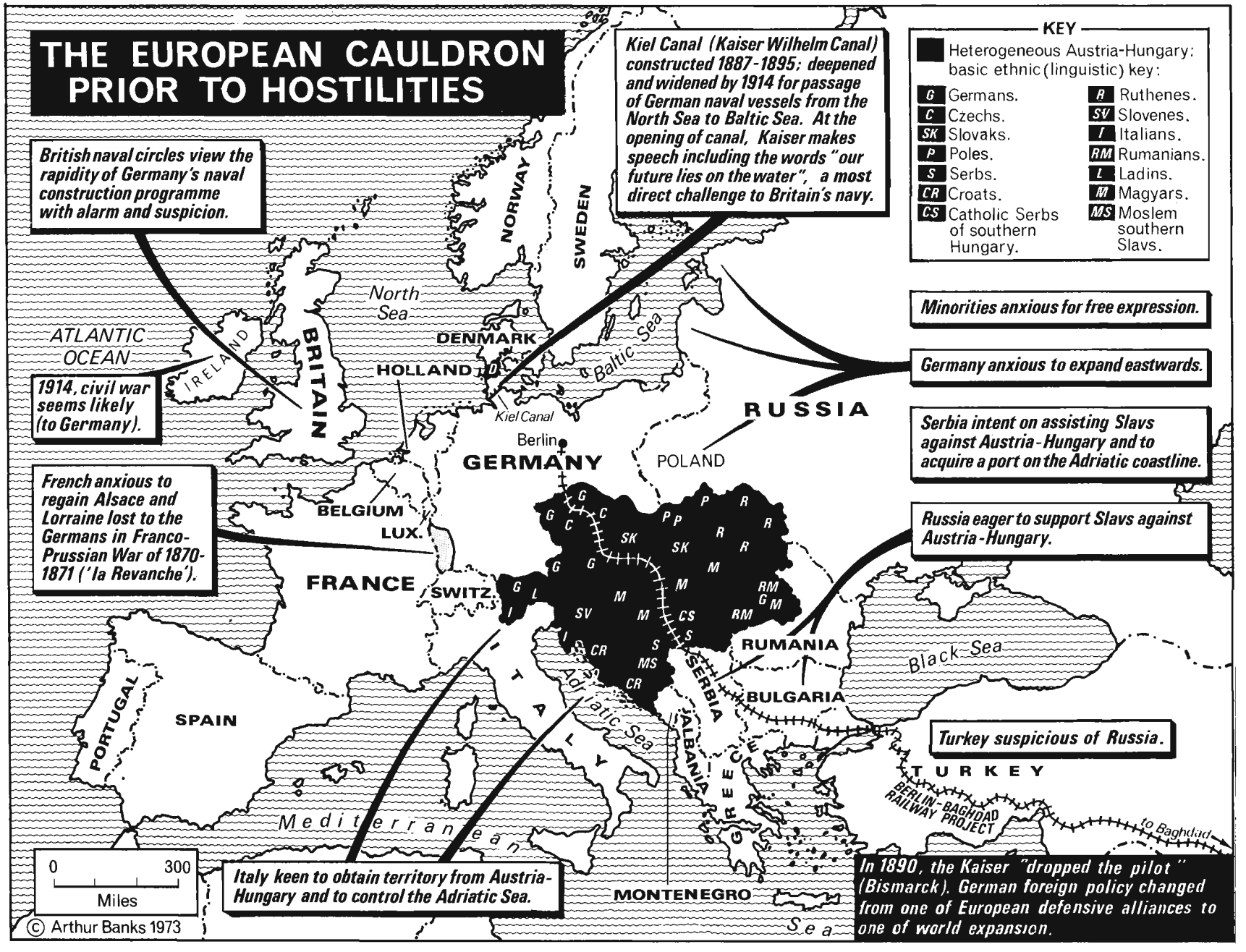
There was, too, uncertainty over the ability of the diplomats to safeguard peace much longer. By 1900 Europe was divided by rival alliances, with the Central Powers (Germany, Austria-Hungary, Italy) on one side and with France and Russia on the other. So long as potential opponents seemed equally strong, these alliances made for continuance of the peace rather than war. But by 1905 Russia, defeated in the Far East by Japan and weakened by the threat of revolution, had ceased to be militarily formidable. There was no genuine balance of strength between the Powers. Too many imponderables accumulated. What would the British do? The Liberal Government gave diplomatic support to its Entente partners, France and Russia, but evaded formal military obligations: in the last resort, only the 1839 pledge to uphold Belgium's neutrality counted in British reckoning. What, too, of Italy? Rivalry with Austria over territorial interests in the Adriatic made the Italians uncomfortable members of the Triple Alliance. Was Italy still a 'Central Power'? There was no doubt that the diplomatic system of 1900 had changed by 1914.

Yet mutual antagonism was growing in intensity rather than diminishing. The French still sought recovery of Alsace-Lorraine; the British were increasingly suspicious of Germany's naval shipbuilding programmes; Russian Pan-Slavism seemed to threaten the integrity of Austria-Hungary; and the Germans resented the web of encirclement which they believed others were weaving around them. Already these issues had provoked diplomatic crises, for which solutions were improvised by statesmen unready for war. But everyone in authority knew that once orders were given for mobilisation, the alliance system would work against any localisation of the conflict. Peace was fragile: the Sarajevo crime was to show it lay ultimately at the mercies of chance. The heir to the Austrian throne and his consort were assassinated in the Bosnian capital by a Serbian student on 28 June 1914. By the middle of August five European Great Powers and two of lesser standing were locked in battle from the Flanders Plain to the eastern foothills of the Carpathians.

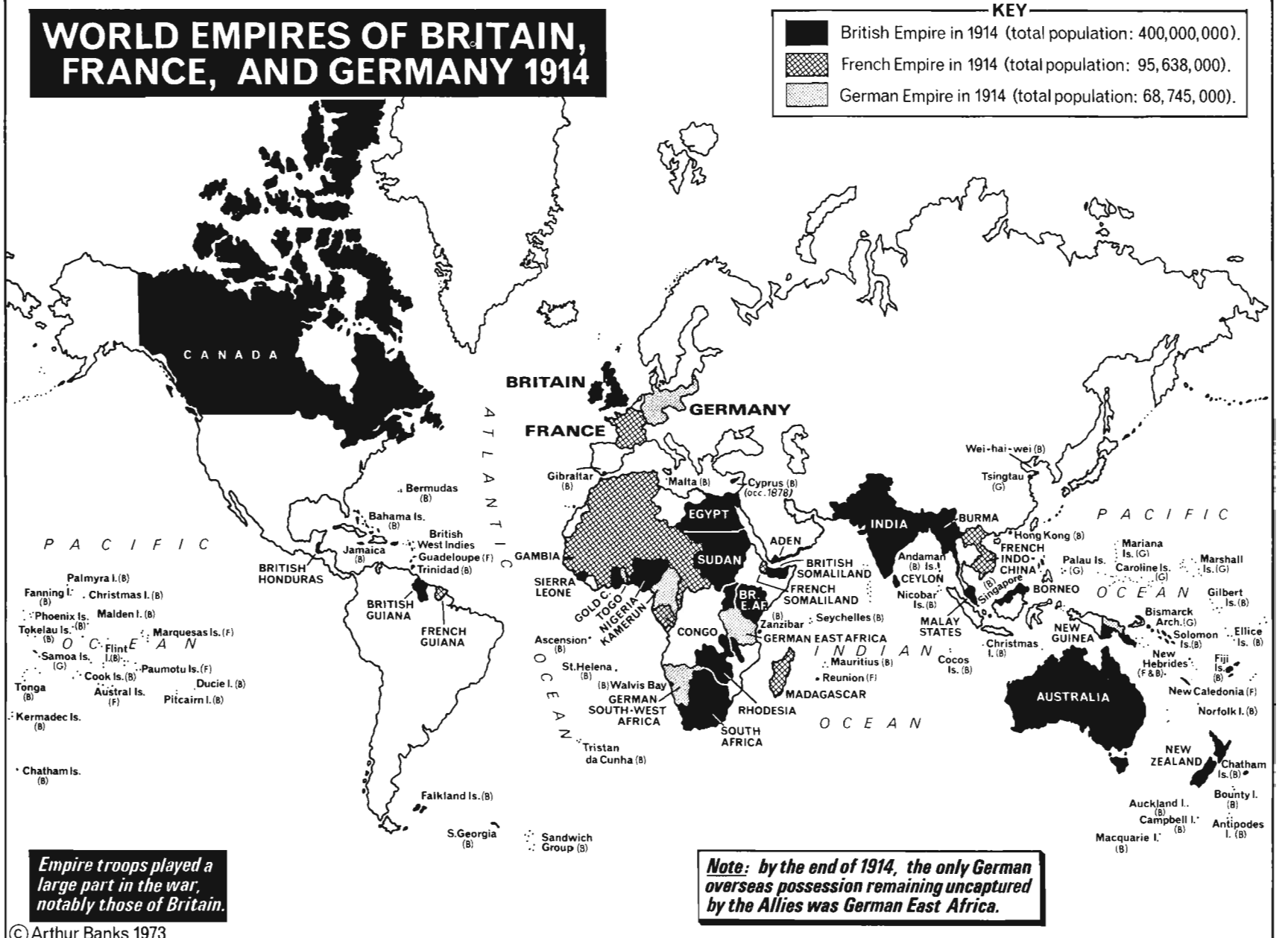

MAIN REASONS WHY THE FIVE MAJOR EUROPEAN POWERS WENT TO WAR IN 1914
© Arthur Banks 1973
KEY
The Triple Entente.
The Central Powers.
BRITAIN
1 To honour treaty obligations to Belgium dating back to 1839.
2 To preserve world naval supremacy.
3 To support France; under a naval agreement, Britain "protected" the English Channel and North Sea zones, thus releasing the French fleet for possible Mediterranean operations.
4 To avoid a continental shift in the balance of power.
? MORAL OBLIGATION. BRITISH CABINET INFLUENCED BY THE MILITARY STAFF TALKS ?
FRANCE
1 To combat growing military importance of Germany.
2 To fulfill treaty obligations to Russia.
3 To regain Alsace and Lorraine.
RUSSIA
1 To ensure that Serbia was not crushed by Austria-Hungary.
2 To dominate the Balkans.
3 To strengthen the position of the Tsar at home; the ruling classes feared growing semi-revolutionary murmurs. A foreign victorious war seemed a good insurance against any internal strife.
GERMANY
1 To protect Austria-Hungary from the consequences of her attack on Serbia.
2 To preserve German security; the Kaiser feared an "encirclement" by the Triple Entente powers.
3 To demonstrate Germany's emergence from a continental rôle to world power status.
4 To gain advantage from a surprise attack. Britain appeared pre-occupied in Ireland and India and with the suffragette movement. Furthermore, Germany was sceptical of Britain's full determination to honour her obligations to Belgium.
AUSTRIA - HUNGARY
1 To crush Pan-Serb movement.
2 To dominate the Balkans by crushing Serbia, thus securing Austrian control of the route to Salonika on the Aegean.
NORWAY
SWEDEN
FINLAND
St. Petersburg
RUSSIA
North Sea
BRITAIN
London
DENMARK
Baltic Sea
HOLLAND
Berlin
GERMANY
POLAND
BELGIUM
Paris
LUX.
FRANCE
SWITZ.
Vienna
AUSTRIA-HUNGARY
RUMANIA
SERBIA
BULGARIA
Salonika
ALBANIA
GREECE
TURKEY
Aegean Sea
Adriatic Sea
ITALY
ATLANTIC OCEAN
PORTUGAL
SPAIN
Mediterranean Sea
MONTENEGRO
ALGERIA (French)
0
300
Miles


THE TWO EUROPEAN RIVAL ARMED CAMPS PRE - 1914
0
300
Miles
KEY
The Triple Alliance of Germany, Austria-Hungary, and Italy.
The Triple Entente of Britain, France, and Russia.
Non-aligned European countries.
BRITISH AND GERMAN NAVAL RIVALRY.
BRITAIN AND THE ENTENTES. These were not formal alliances: they were "understandings" (e.g. settlements of old disputes).
FRENCH DESIROUS OF RETRIEVING ALSACE AND LORRAINE FROM GERMANY.
THE TRIPLE ALLIANCE
After the Franco-Prussian war of 1870-1871, Bismarck feared that the French, embittered by the loss of Alsace-Lorraine, would embark upon a war of revenge in combination with other Great Powers. The Dual Alliance of 1879 (between Germany and Austria-Hungary) provided for mutual assistance in the event of an attack by Russia. Italy joined this defensive pact following the French seizure of Tunis in 1881, and in 1882 the Triple Alliance was concluded. However, Italy was unwilling to oppose Britain and France (their fleets dominating the Mediterranean Sea), and she distrusted Austria, who retained in Trentino part of "Italia Irredenta".
THE TRIPLE ENTENTE
After 1882, Russia and France were isolated by the Triple Alliance. Therefore, in 1894, they combined to form the Dual Alliance. Britain and France were linked by the Entente Cordiale of 1904 mainly due to Britain's fear of the Kaiser's expansionist naval policy. France's aim then became to link Britain with Russia, thus forging a Triple Entente to counterbalance the Triple Alliance. This ambition was realized in 1907.
This map illustrates the widely-publicised notion in pre-war Germany that she was being encircled by the "Triple Entente" powers.
BRITISH AND FRENCH FLEETS DOMINATE THE MEDITERRANEAN
SERBIA BARRING AUSTRIAN EXPANSION TO THE SOUTH-EAST.
© Arthur Banks 1973
NORWAY
SWEDEN
FINLAND
St. Petersburg
1907
North Sea
DENMARK
Baltic Sea
IRELAND
BRITAIN
HOLL.
London
Berlin
RUSSIA
1894
1904
BELG.
POLAND
GERMANY
1897
1882
Paris
LUX.
AUSTRIA-HUNGARY
Vienna
PAN-SLAV MOVEMENT
Bay of Biscay
FRANCE
SWITZ.
1882
1894
RUMANIA
Black Sea
SERBIA
BULGARIA
PORTUGAL
SPAIN
ITALY
Rome
ALBANIA
GREECE
TURKEY
Gibraltar (British)
MONTENEGRO
Tunis
Malta (British)


A BASIC APPRAISAL OF THE MAIN CONTESTANTS 1914
© Arthur Banks 1973
KEY
The Entente Powers.
The Central Powers.
BRITAIN
1 Essentially a sea power, rather than a land power (due to Empire considerations).
2 Inexperienced in large European-style land operations.
3 Reliance placed upon cavalry rather than upon artillery.
4 Reliance placed upon rifle techniques rather than upon machine gunnery.
5 An 'amateur' army power, rather than a 'professional' army power.
6 An 'untapped' Empire at her disposal.
GERMANY
1 The sole European nation to appreciate the importance of mortars, howitzers, and machine guns.
2 Appreciation of an efficient railway system to switch troops from west to east in the event of a 'two-front' war.
3 Foresight to back-up a front-line corps with a 'reserve' corps.
4 Active in scientific research.
RUSSIA
WEAK AFTER DEFEAT BY JAPAN (RIOTS AND MUTINIES OF 1905).
RUSSIA
1 Overwhelming in terms of potential man-power.
2 Weak in communications and in manufacturing munitions.
3 Poorly-led compared to her enemies.
4 Geographically isolated from her allies.
5 Confronted with a 'two-front' war situation (against Germany and Austria-Hungary).
FRANCE
1 Population disadvantage with Germany in terms of a long war (potential 'call-up').
2 Possession of the best artillery gun in the world (the 75-mm.).
3 Expectation of a short war.
4 Reliance upon out-of-date forts.
AUSTRIA—HUNGARY
1 Weakened by her racial structure, yet strengthened by her resolute Germanic and Magyar backgrounds.
2 Conscious of the need to defend a long frontier.
3 Army obsolescent in equipment.
4 Possessed by an offensive spirit.
BRITAIN
LONDON
BERLIN
GERMANY
PARIS
FRANCE
VIENNA
AUSTRIA-HUNGARY
ST. PETERSBURG
RUSSIA
Corsica
ALGERIA
0
300
Miles


THE EUROPEAN CAULDRON PRIOR TO HOSTILITIES
British naval circles view the rapidity of Germany's naval construction programme with alarm and suspicion.
Kiel Canal (Kaiser Wilhelm Canal) constructed 1887-1895; deepened and widened by 1914 for passage of German naval vessels from the North Sea to Baltic Sea. At the opening of canal, Kaiser makes speech including the words "our future lies on the water", a most direct challenge to Britain's navy.
KEY
Heterogeneous Austria-Hungary: basic ethnic (linguistic) key:
G Germans.
C Czechs.
SK Slovaks.
P Poles.
S Serbs.
CR Croats.
CS Catholic Serbs of southern Hungary.
R Ruthenes.
SV Slovenes.
I Italians.
RM Rumanians.
L Ladins.
M Magyars.
MS Moslem southern Slavs.
Minorities anxious for free expression.
Germany anxious to expand eastwards.
Serbia intent on assisting Slavs against Austria-Hungary and to acquire a port on the Adriatic coastline.
Russia eager to support Slavs against Austria-Hungary.
1914, civil war seems likely (to Germany).
French anxious to regain Alsace and Lorraine lost to the Germans in Franco-Prussian War of 1870-1871 ('la Revanche').
Italy keen to obtain territory from Austria-Hungary and to control the Adriatic Sea.
Turkey suspicious of Russia.
In 1890, the Kaiser "dropped the pilot" (Bismarck). German foreign policy changed from one of European defensive alliances to one of world expansion.
ATLANTIC OCEAN
IRELAND
BRITAIN
North Sea
NORWAY
SWEDEN
DENMARK
HOLLAND
Baltic Sea
Kiel Canal
Berlin
GERMANY
POLAND
RUSSIA
BELGIUM
LUX.
FRANCE
SWITZ.
PORTUGAL
SPAIN
ITALY
Adriatic Sea
Mediterranean Sea
ALBANIA
GREECE
SERBIA
MONTENEGRO
RUMANIA
BULGARIA
Black Sea
TURKEY
BERLIN-BAGHDAD RAILWAY PROJECT
to Baghdad
0
300
Miles
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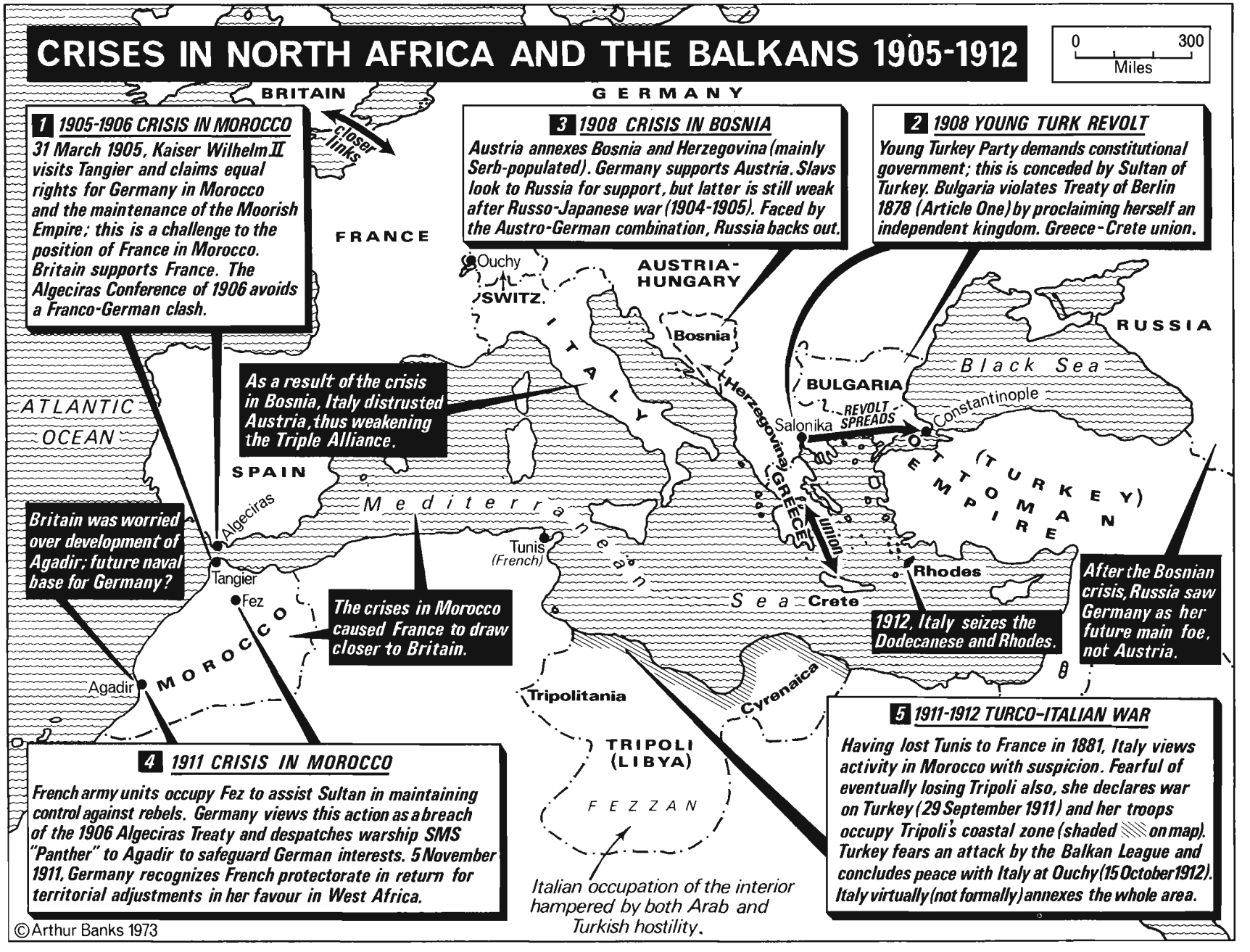
# WORLD EMPIRES OF BRITAIN, FRANCE, AND GERMANY 1914

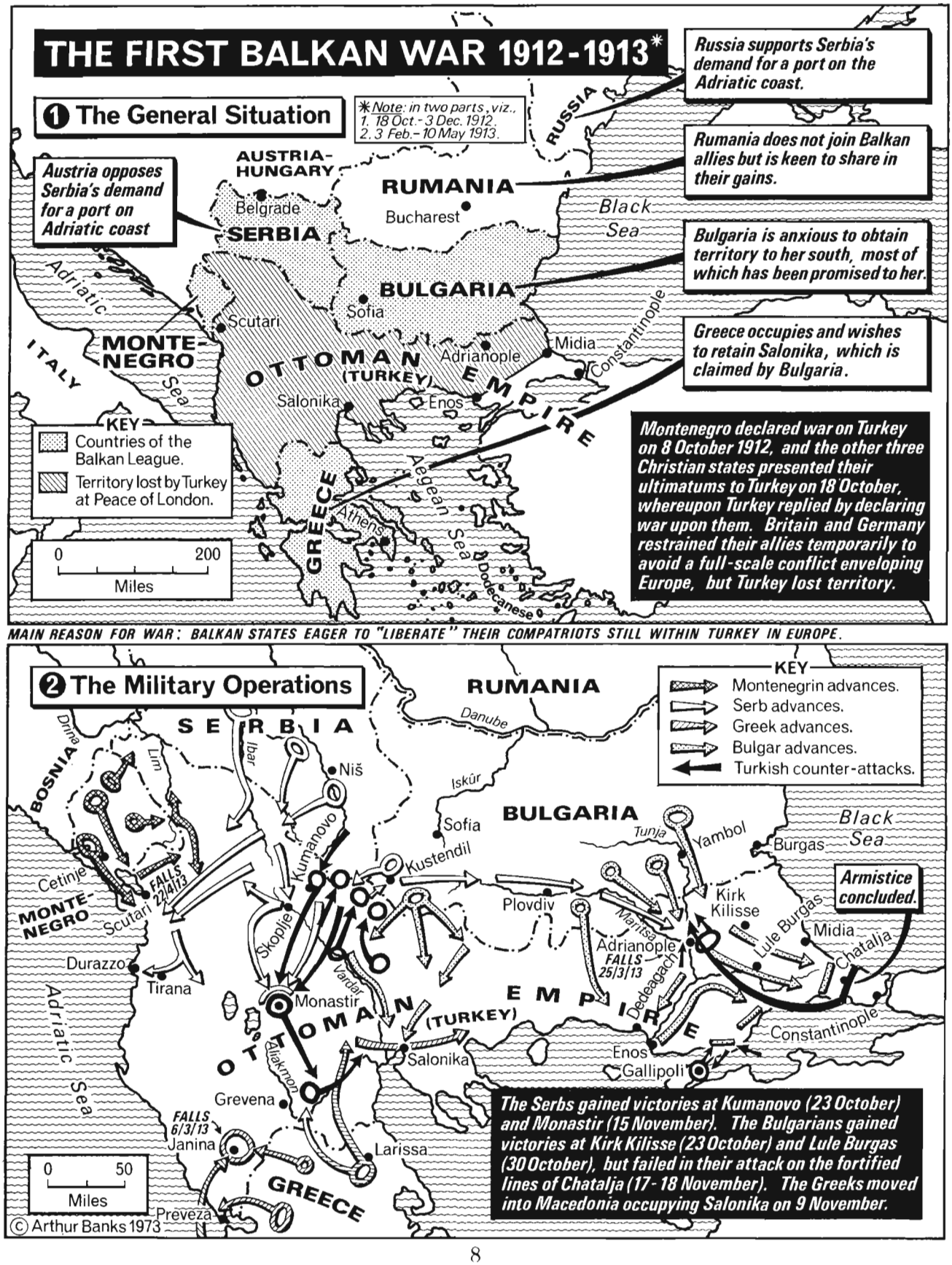



*Empire troops played a large part in the war, notably those of Britain.*

***Note**: by the end of 1914, the only German overseas possession remaining uncaptured by the Allies was German East Africa.*

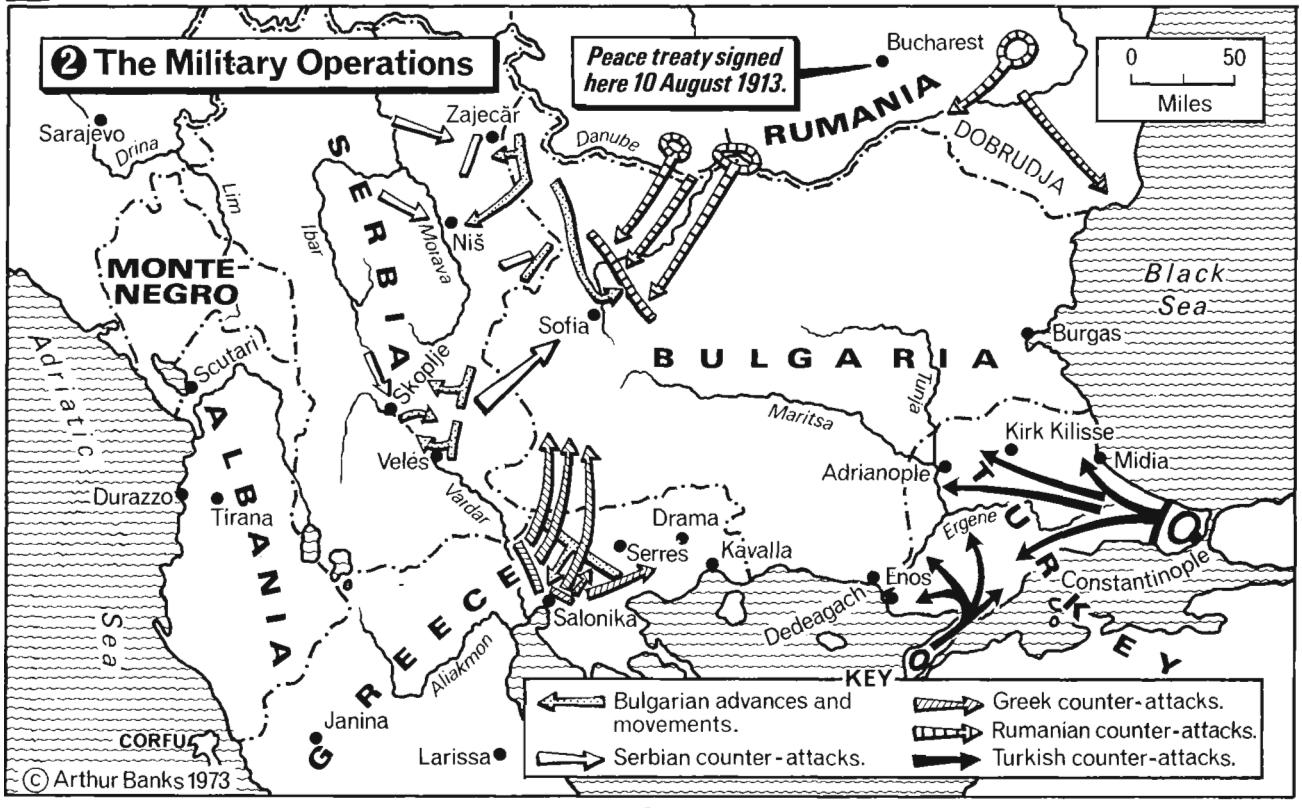
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CRISES IN NORTH AFRICA AND THE BALKANS 1905-1912
0
300
Miles
BRITAIN
GERMANY
1 1905-1906 CRISIS IN MOROCCO
31 March 1905, Kaiser Wilhelm II visits Tangier and claims equal rights for Germany in Morocco and the maintenance of the Moorish Empire; this is a challenge to the position of France in Morocco. Britain supports France. The Algeciras Conference of 1906 avoids a Franco-German clash.
Closer links
FRANCE
3 1908 CRISIS IN BOSNIA
Austria annexes Bosnia and Herzegovina (mainly Serb-populated). Germany supports Austria. Slavs look to Russia for support, but latter is still weak after Russo-Japanese war (1904-1905). Faced by the Austro-German combination, Russia backs out.
2 1908 YOUNG TURK REVOLT
Young Turkey Party demands constitutional government; this is conceded by Sultan of Turkey. Bulgaria violates Treaty of Berlin 1878 (Article One) by proclaiming herself an independent kingdom. Greece-Crete union.
Ouchy
SWITZ.
AUSTRIA-HUNGARY
RUSSIA
Bosnia
Herzegovina
ITALY
Black Sea
BULGARIA
REVOLT SPREADS
Constantinople
Salonika
ATLANTIC OCEAN
As a result of the crisis in Bosnia, Italy distrusted Austria, thus weakening the Triple Alliance.
SPAIN
GREECE
Union
OTTOMAN EMPIRE (TURKEY)
Mediterranean Sea
Algeciras
Tunis (French)
Britain was worried over development of Agadir; future naval base for Germany?
Tangier
Fez
Rhodes
Crete
The crises in Morocco caused France to draw closer to Britain.
1912, Italy seizes the Dodecanese and Rhodes.
After the Bosnian crisis, Russia saw Germany as her future main foe, not Austria.
MOROCCO
Agadir
Tripolitania
Cyrenaica
TRIPOLI (LIBYA)
FEZZAN
5 1911-1912 TURCO-ITALIAN WAR
Having lost Tunis to France in 1881, Italy views activity in Morocco with suspicion. Fearful of eventually losing Tripoli also, she declares war on Turkey (29 September 1911) and her troops occupy Tripoli's coastal zone (shaded ▨ on map). Turkey fears an attack by the Balkan League and concludes peace with Italy at Ouchy (15 October 1912). Italy virtually (not formally) annexes the whole area.
4 1911 CRISIS IN MOROCCO
French army units occupy Fez to assist Sultan in maintaining control against rebels. Germany views this action as a breach of the 1906 Algeciras Treaty and despatches warship SMS "Panther" to Agadir to safeguard German interests. 5 November 1911, Germany recognizes French protectorate in return for territorial adjustments in her favour in West Africa.
Italian occupation of the interior hampered by both Arab and Turkish hostility.
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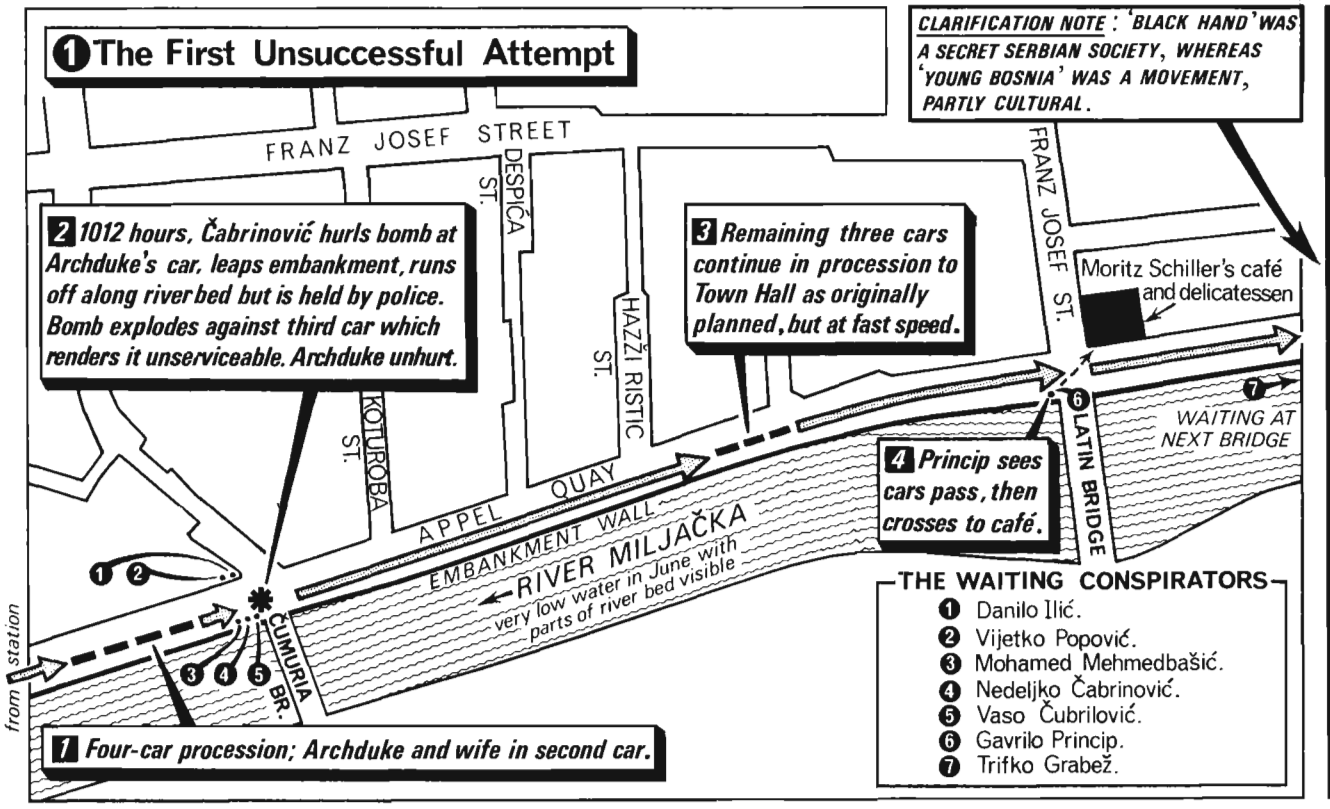

THE FIRST BALKAN WAR 1912-1913*
1 The General Situation
*Note: in two parts, viz., 1. 18 Oct.-3 Dec. 1912. 2. 3 Feb.-10 May 1913.
Russia supports Serbia's demand for a port on the Adriatic coast.
Rumania does not join Balkan allies but is keen to share in their gains.
Bulgaria is anxious to obtain territory to her south, most of which has been promised to her.
Greece occupies and wishes to retain Salonika, which is claimed by Bulgaria.
Austria opposes Serbia's demand for a port on Adriatic coast
Montenegro declared war on Turkey on 8 October 1912, and the other three Christian states presented their ultimatums to Turkey on 18 October, whereupon Turkey replied by declaring war upon them. Britain and Germany restrained their allies temporarily to avoid a full-scale conflict enveloping Europe, but Turkey lost territory.
RUSSIA
AUSTRIA-HUNGARY
RUMANIA
Belgrade
Bucharest
Black Sea
SERBIA
BULGARIA
Adriatic
Scutari
Sofia
Midia
Constantinople
MONTE-NEGRO
ITALY
Sea
OTTOMAN EMPIRE (TURKEY)
Adrianople
Salonika
Enos
KEY
Countries of the Balkan League.
Territory lost by Turkey at Peace of London.
GREECE
Aegean Sea
Athens
Dodecanese
0
200
Miles
MAIN REASON FOR WAR: BALKAN STATES EAGER TO "LIBERATE" THEIR COMPATRIOTS STILL WITHIN TURKEY IN EUROPE.
2 The Military Operations
KEY
Montenegrin advances.
Serb advances.
Greek advances.
Bulgar advances.
Turkish counter-attacks.
RUMANIA
Danube
SERBIA
Drina
Lim
Ibar
Niš
BOSNIA
Iskür
BULGARIA
Sofia
Tunja
Yambol
Black Sea
Burgas
Armistice concluded.
Kumanovo
Kustendil
Cetinje
FALLS 22/4/13
Plovdiv
Kirk Kilisse
Lule Burgas
Midia
Chatalja
MONTE-NEGRO
Scutari
Skoplje
Maritsa
Adrianople
FALLS 25/3/13
Dedeagach
Durazzo
Tirana
Vardar
Monastir
OTTOMAN EMPIRE (TURKEY)
Constantinople
Enos
Gallipoli
Salonika
Aliakmon
Adriatic Sea
Grevena
FALLS 6/3/13
Janina
Larissa
GREECE
Preveza
0
50
Miles
The Serbs gained victories at Kumanovo (23 October) and Monastir (15 November). The Bulgarians gained victories at Kirk Kilisse (23 October) and Lule Burgas (30 October), but failed in their attack on the fortified lines of Chatalja (17-18 November). The Greeks moved into Macedonia occupying Salonika on 9 November.
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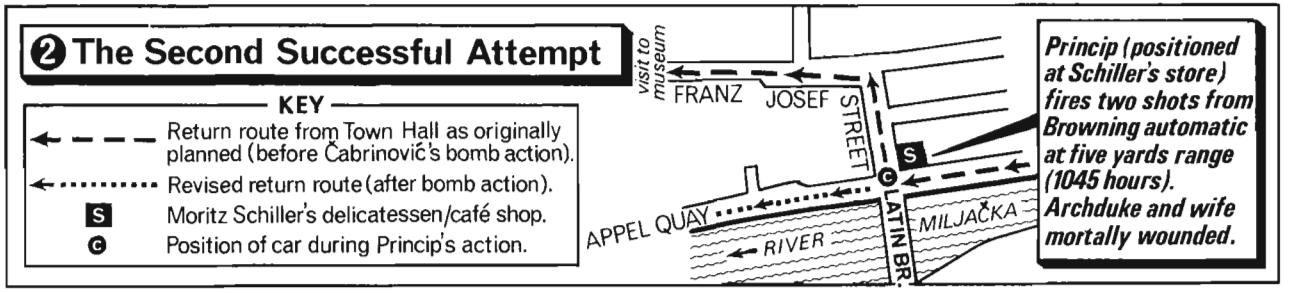

NOTE: THIS WAR WAS BASICALLY A QUARREL OVER THE PREVIOUS SPOILS AND OVER THE RACIAL CHARACTER OF MACEDONIA.



# THE 'SPARK'-ASSASSINATION OF FRANZ FERDINAND 28 JUNE 1914



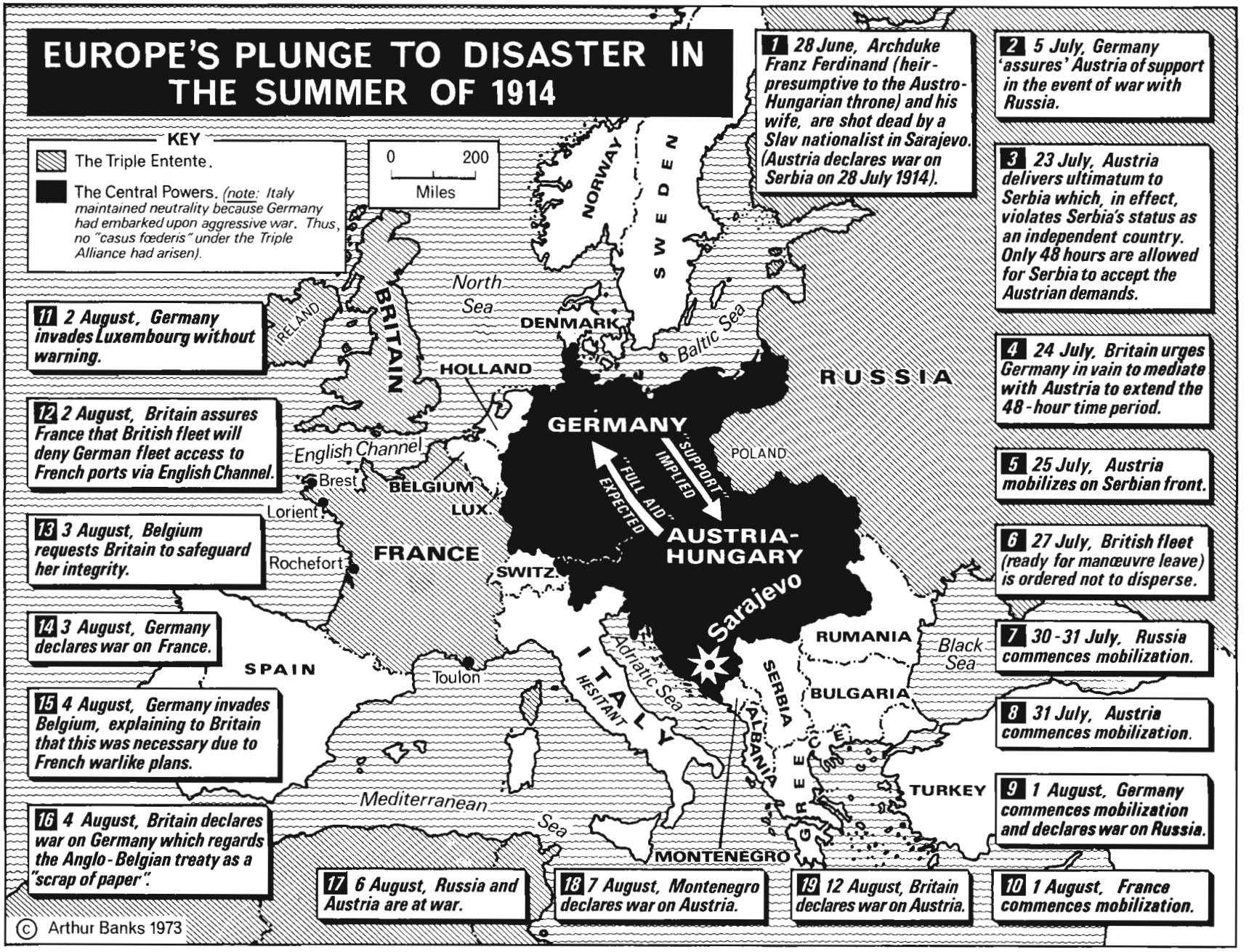

*The assassination of Archduke Franz Ferdinand (heir to the throne of Austria-Hungary) and his wife at Sarajevo, capital of Bosnia, was the spark igniting a chain reaction sequence that led to the outbreak of war in 1914. A group of conspirators associated with two Balkan Slav societies (the 'Black Hand' and the 'Young Bosnia') were involved in the plot, which was put into operation on St. Vitus' Day (a Serbian festival).*
*The first attempt failed, but the Archduke, who was on an official visit to Sarajevo, went on to the Town Hall as arranged. The return route was altered but the driver of the Archduke's car misunderstood the change of plan (due to poor briefing) and followed the leading car into Franz Josef Street. Princip, one of the conspirators, saw the car reversing into Appel Quay, ran into the road and shot the Archduke and Duchess.*




THE TRAGIC FAMILY HISTORY OF FRANZ JOSEF (EMPEROR OF AUSTRIA)

1867. His brother, Emperor of Mexico, was executed.
1889. His son, Crown Prince Rudolf, died mysteriously.
1898. His wife, Empress Elizabeth, was assassinated.

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EUROPE'S PLUNGE TO DISASTER IN THE SUMMER OF 1914
KEY
The Triple Entente.
The Central Powers. (note: Italy maintained neutrality because Germany had embarked upon aggressive war. Thus, no "casus fœderis" under the Triple Alliance had arisen).
0 200
Miles
1 28 June, Archduke Franz Ferdinand (heir-presumptive to the Austro-Hungarian throne) and his wife, are shot dead by a Slav nationalist in Sarajevo. (Austria declares war on Serbia on 28 July 1914).
2 5 July, Germany 'assures' Austria of support in the event of war with Russia.
3 23 July, Austria delivers ultimatum to Serbia which, in effect, violates Serbia's status as an independent country. Only 48 hours are allowed for Serbia to accept the Austrian demands.
4 24 July, Britain urges Germany in vain to mediate with Austria to extend the 48-hour time period.
5 25 July, Austria mobilizes on Serbian front.
6 27 July, British fleet (ready for manœuvre leave) is ordered not to disperse.
7 30-31 July, Russia commences mobilization.
8 31 July, Austria commences mobilization.
9 1 August, Germany commences mobilization and declares war on Russia.
10 1 August, France commences mobilization.
11 2 August, Germany invades Luxembourg without warning.
12 2 August, Britain assures France that British fleet will deny German fleet access to French ports via English Channel.
13 3 August, Belgium requests Britain to safeguard her integrity.
14 3 August, Germany declares war on France.
15 4 August, Germany invades Belgium, explaining to Britain that this was necessary due to French warlike plans.
16 4 August, Britain declares war on Germany which regards the Anglo-Belgian treaty as a "scrap of paper".
17 6 August, Russia and Austria are at war.
18 7 August, Montenegro declares war on Austria.
19 12 August, Britain declares war on Austria.
NORWAY
SWEDEN
North Sea
Baltic Sea
DENMARK
IRELAND
BRITAIN
HOLLAND
RUSSIA
GERMANY
"SUPPORT" IMPLIED
"FULL AID" EXPECTED
POLAND
English Channel
Brest
BELGIUM
LUX.
Lorient
Rochefort
FRANCE
SWITZ.
AUSTRIA-HUNGARY
Sarajevo
RUMANIA
Black Sea
SERBIA
BULGARIA
SPAIN
Toulon
ITALY
HESITANT
Adriatic Sea
ALBANIA
GREECE
TURKEY
Mediterranean Sea
MONTENEGRO
© Arthur Banks 1973

# WAR ON THE WESTERN FRONT IN 1914

There had never been so great a concentration of military forces as in August 1914. A little over a century before, Napoleon (who, with Voltaire, believed fortune favoured 'the big battalions') staggered his contemporaries by gathering a Grand Army of 500,000 men to invade Russia. Yet, within a fortnight of the outbreak of war in 1914, the Germans had three times that number in France and Belgium alone. At the same time there were over a million Frenchmen on the Western Front, with three million reservists on call; both the Russians and the Austrians had more than a million and a quarter field troops along their frontiers; and by the end of the year a million volunteers in Britain had come forward for Kitchener's 'New Army'. Napoleon's Marshals counted their big battalions in hundreds of thousands; the commanders of 1914 thought in millions.

These huge numbers determined the character of the war. Military theorists in both France and Germany had long believed victory would come to the nation able rapidly to mobilise its mass of manpower and deploy its forces effectively in the field. It was assumed that the key to success lay in an offensive spirit and that the outcome of the war would be decided by a single campaign on each Front. Kitchener warned the British Cabinet the war would last for at least three years, but his colleagues doubted his powers of judgment. In Berlin that August the Kaiser told departing troops, 'You will be home before the leaves have fallen from the trees'; and few public figures in London, Paris or St Petersburg (soon to be renamed Petrograd) believed the fighting would continue for more than six months. The great tragedy for Europe is that when rapid victory eluded the combatants, the armies—still massive in numbers—became deadlocked in trench warfare, the big battalions checked by the unexpected defensive power of machine guns and exposed to the fury of weapons which the authorities had underrated. It was this transformation of the battlefield which wasted so many lives. Casualties were heavy during the 'war of movement': they were heavier still during the long agony of the 'war of attrition'. At a conservative estimate over the world as a whole—with land fighting in three continents and with warships engaged on every ocean—one sailor, soldier or airman was killed for every ten seconds the war lasted; and it continued in the end for fifty-one months.

Yet, at the outset, it seemed as if the fighting would indeed 'all be over by Christmas'. The Schlieffen Plan, finally adopted by the German General Staff at the end of 1905, proposed a holding operation against the Russians (who, it was assumed, would be slow to mobilise) in the East while the bulk of the German Army struck against France with an enveloping movement through Flanders and Picardy which would invest Paris from the west and south and thus force the French armies eastwards on to their own defences from Nancy to Belfort. British intervention, though regarded as probable once Belgium was invaded, was discounted as negligible. France defeated, the Germans planned to use the network of railways to move their forces eastwards and destroy the Russian menace. This plan, which was modified by Moltke (Chief of the German General Staff since 1906) in the three years immediately preceding the war, came within an ace of success. The French grand design—Plan XVII—to some extent played into German hands, for it committed two armies to an attack on Lorraine, away from the principal threat to the heart of France. Even when amended after the German invasion of Luxembourg, Plan XVII still ignored the strength of the enemy's thrust into western Belgium. So successful were the Germans that on 30 August the readers of *The Times* in England were startled to learn that 'the investment of Paris cannot be banished from the field of possibility'. What the public was not told was that the French, exhausting themselves by courageous counter-attacks in the spirit of Napoleonic battle panoramas, had already suffered nearly a third of a million casualties (dead, missing, wounded). One out of every ten officers in the whole French army (not merely the regiments in the field) was killed or incapacitated before the end of August 1914.

Moltke's variation on the Schlieffen Plan failed for three principal reasons. He lost touch with his army commanders, who showed excessive independence of manoeuvre; he was so worried by reports of the

Russian advance into East Prussia that he weakened his right wing by detaching troops to the East (compare pages 19, 88 and 89); and he failed to see that three weeks of forced marches in intensive heat and blazing sunshine had reduced the efficiency of the invading armies. When General von Kluck began to move his tired troops south-eastwards, exposing the right flank of the German First Army to the Paris garrison (page 54), the fate of the whole war was in the balance. The French commander-in-chief, Joffre, supported by the Military Governor of Paris, General Gallieni, ordered the French Sixth, Fifth and Ninth Armies (Generals Maunoury, Franchet d'Espèrey and Foch) together with the British Expeditionary Force (Field-Marshal Sir John French) to counter-attack across the lower Marne and its tributaries on 5–6 September. There followed the series of inter-related engagements, the legendary 'miracle of the Marne', fought along a front of more than 125 miles. Momentarily the nerve of the German High Command seemed to crack; Paris and France were saved; the German knock-out blow—which had stunned France in 1870 and which was to stun France again in 1940—was thrust aside.

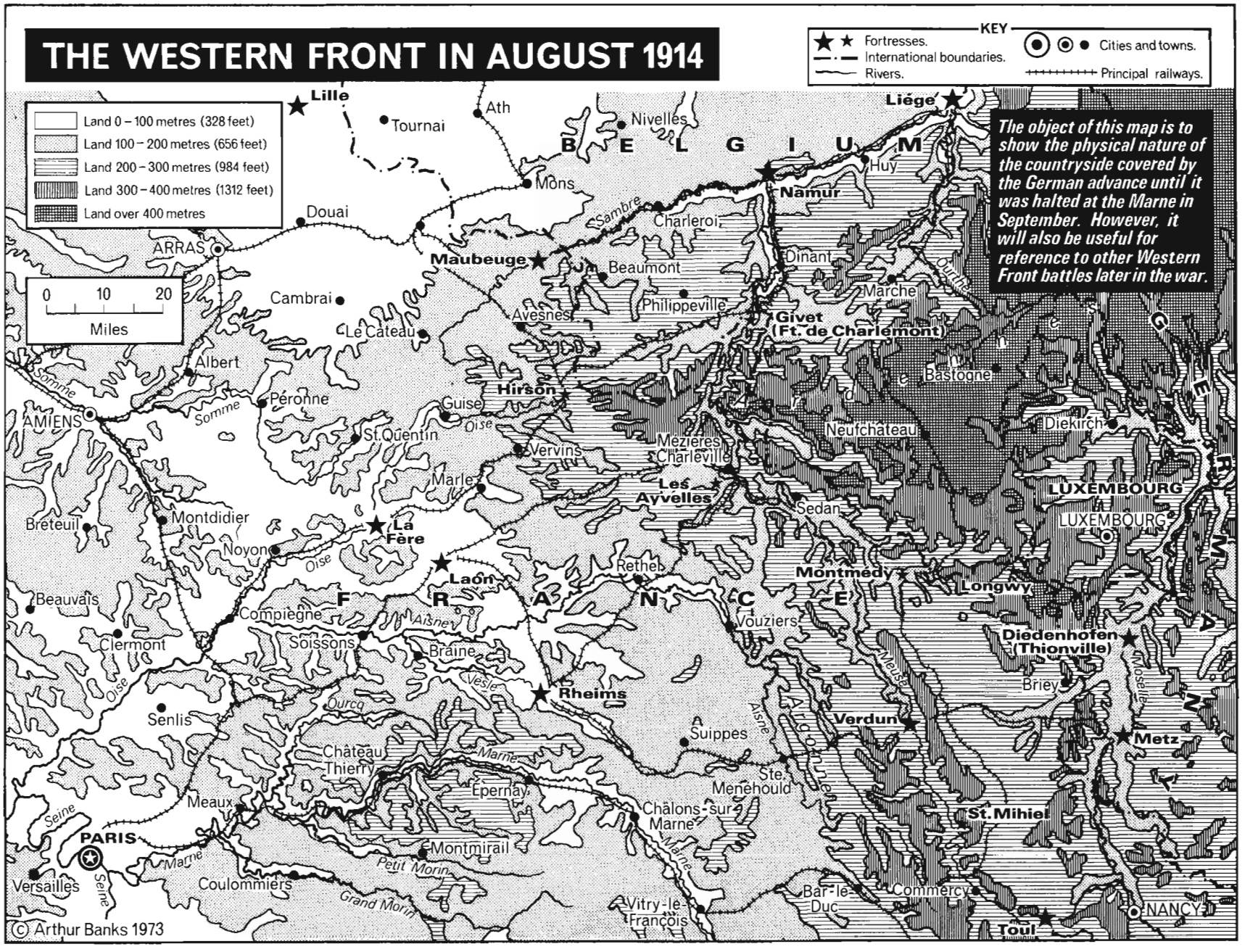
If the Allies had not themselves been so weary and cautious that September, they might well have turned the German retreat from the Marne into a sensational defeat. As it was, the Germans found they could stabilise their line north of Rheims and along the river Aisne. Moltke retired from active service and was replaced as Chief of the German General Staff by General von Falkenhayn, who at once determined to consolidate the German hold on Belgium, through which the invaders had passed like a scythe in the first weeks of war. When Brussels was occupied on 20 August five divisions of the Belgian Army (80,000 men) fell back on Antwerp, the great fortress-port on the Schelde. So long as the Belgians held Antwerp (from which they made a number of sorties to relieve pressure on the French and British on the Marne and the Aisne) there was a possibility of using the city as a point from which to attack the German right flank. This threat the Germans were determined to eradicate. The First Lord of the Admiralty, Churchill, sought to stiffen resistance in Antwerp by a personal visit and by sending from England a naval division, which was hastily trained and inadequately armed. In the event, the Belgians placed excessive reliance on outdated forts and redoubts which could not withstand the pounding of German artillery. Antwerp duly surrendered to General von Beseler on 9 October, but the main Belgian army withdrew by way of Ghent and Bruges to the line of a canalised small river, the Yser. There, inspired by their courageous King Albert, the Belgians resisted a German advance towards Dunkirk, eventually opening the sluices of Nieuport and bringing the North Sea in flood to the aid of the defenders.

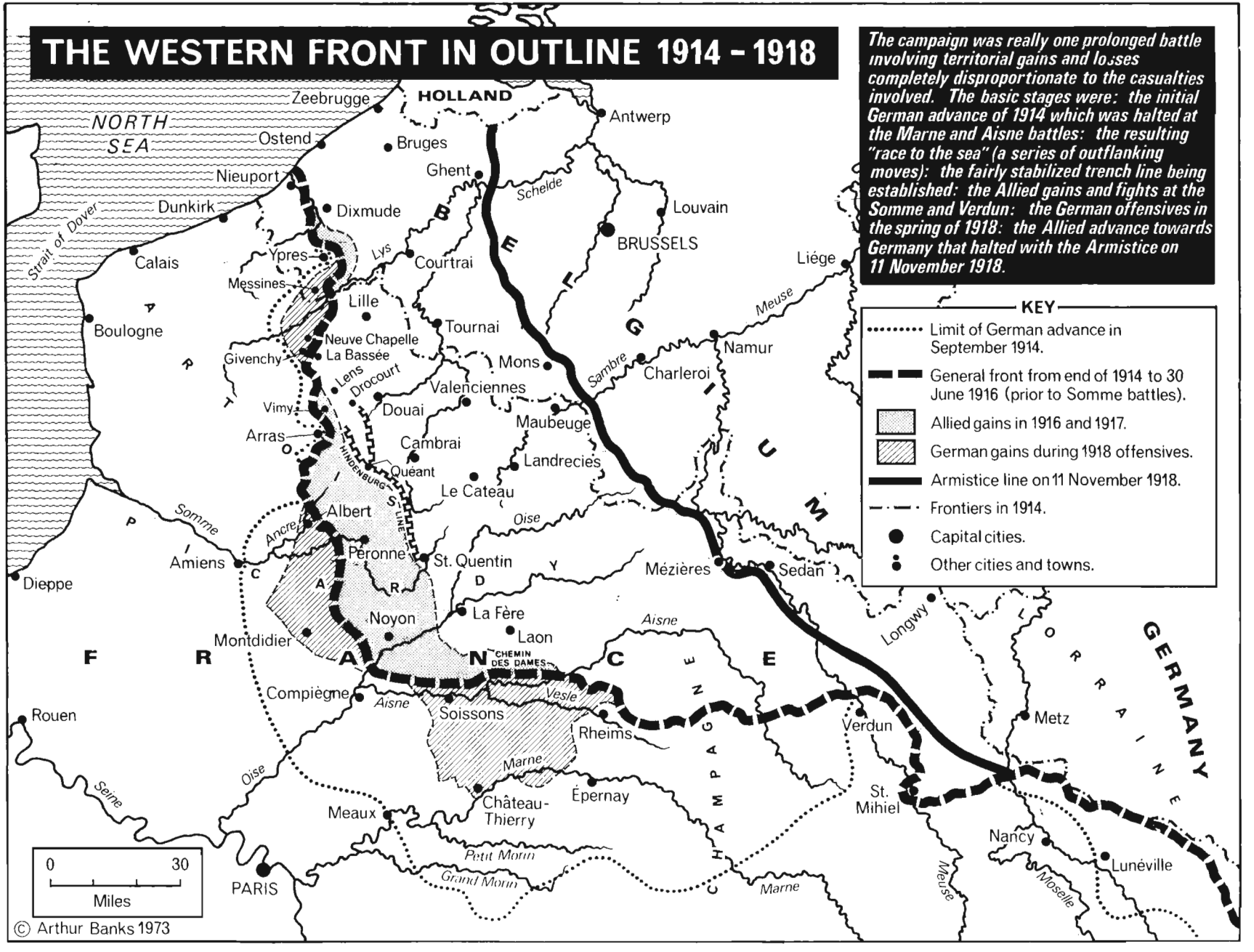
While Beseler was besieging Antwerp, both the Germans and the Allies were engaged in a complicated movement from the Aisne to cover the Channel ports. At times during this 'race for the sea' it seemed as if both sides were risking envelopment by the other during their outflanking operations. Briefly there was hope that the British would capture Lille and open up a route towards Brussels, but they failed to penetrate the town in strength. All six divisions of the B.E.F. were moved northwards from the Aisne to Flanders. By the end of the second week in October they had established a salient around Ypres, Armentières and Neuve Chapelle. It was here that they faced Falkenhayn's principal attempt to break through the Allied positions and take Calais and Boulogne.

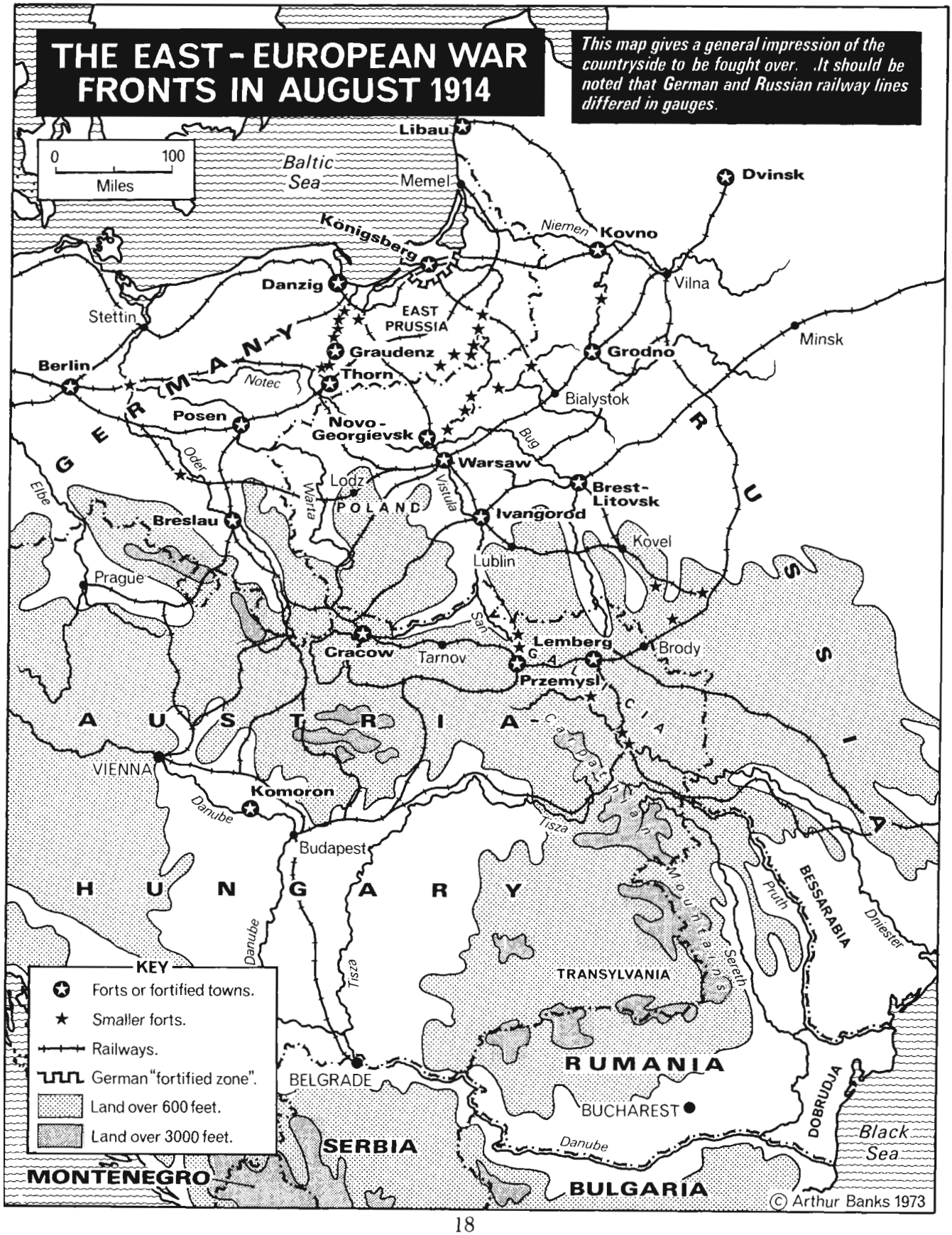
The first battle of Ypres (October–November 1914) virtually destroyed the old peacetime British regular army and began to take heavy toll of the new territorial infantry battalions as well. 50,000 British soldiers fell at Ypres that autumn, one division losing two-thirds of its infantry in three weeks of combat. Hardest hit were the original 'old contemptibles', the men who had gone forward to Mons in August (page 47) and retreated for a gruelling fortnight before turning back south of the Marne and forcing the Germans northwards to the Belgian frontier. By the end of November over half of the men who had crossed to France three months previously were casualties, one in ten of them dead. The Germans lost twice as many soldiers as the British at Ypres, yet they never broke through. They penetrated the British line at Gheluvelt on the Menin Road (31 October) but were ejected in a surprise counter attack by the 2nd Battalion of the Worcestershire Regiment, subsequently supported by French units. The city of Ypres was never captured by the Germans, even though fighting raged continuously around the ruined mediaeval cloth town for four years. Ypres and its salient acquired a symbolic significance for the British which was out of all proportion to its strategic value. There were two later battles within the Ypres Salient: in the spring of 1915 (pages 138–143) and from June to November 1917 (pages 172–173); and a final

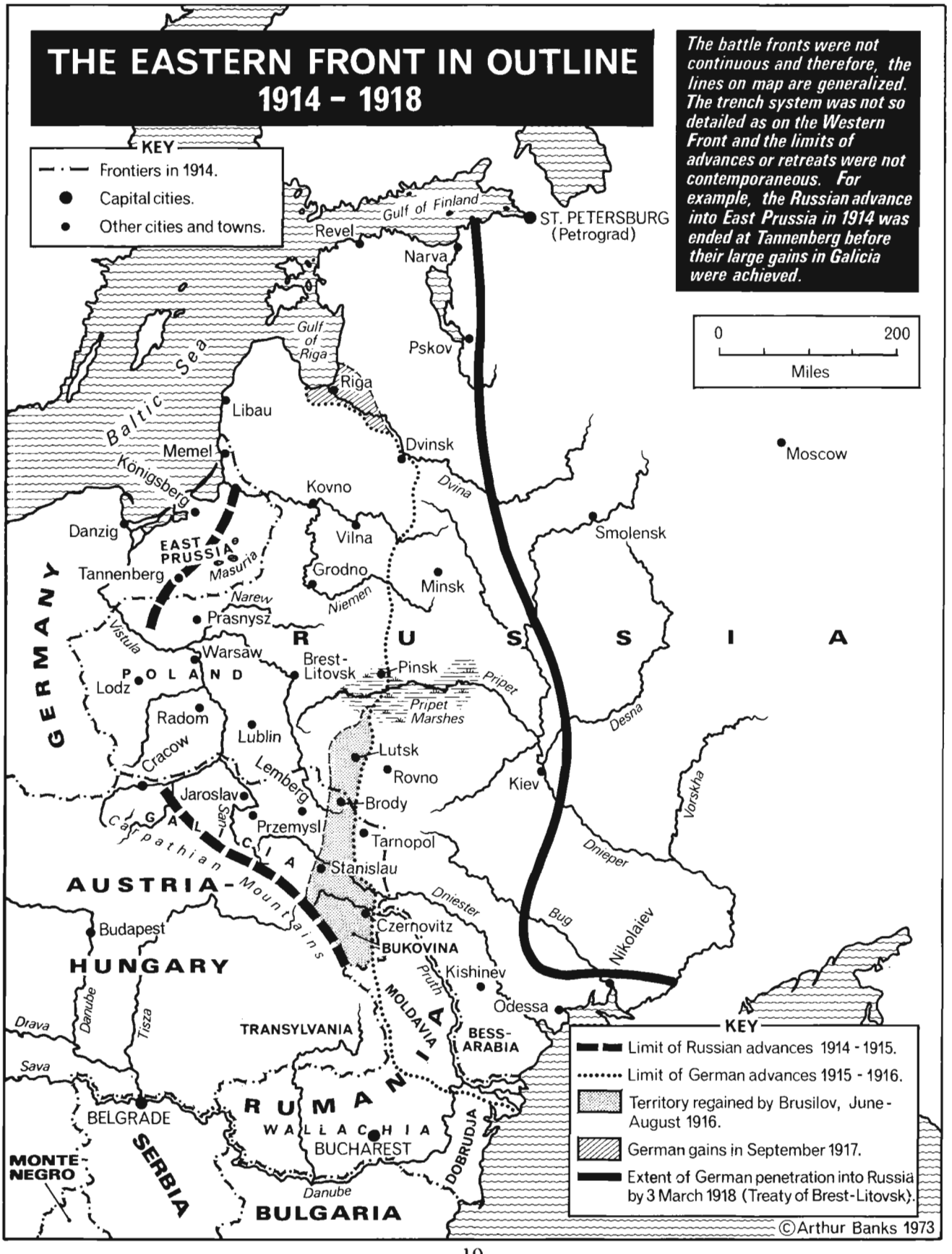
penetration of the German positions in September 1918 (page 196).

Winter set in before the First Battle of Ypres was over. There was no longer any danger of an outright German victory, but equally there was little prospect of an Allied breakthrough. First Ypres marked the end of open warfare: henceforth the opposing armies on the Western Front were paralysed by barbed wire, by entrenchments, by minefields, and by machine-gun emplacements. In another sense, too, First Ypres marked a change of character in the war. The first month of fighting had shown divisions and suspicion between the Allied commanders, especially between the British and the French. The close proximity of British, French and Belgian lines around Ypres helped to weld together the Allied command, although it was difficult to forget old prejudices. The mud-filled disease-ridden trenches bred a sense of communal adversity. At the same time First Ypres showed the extent of Allied resources, for in the line were not only the first battalions of Kitchener's 'new army', but Zouave regiments from French Algeria and Indians from Lahore. Before the fighting died away at the salient in 1918, they were to be joined by units from Canada, Senegal and finally the United States. The cemeteries around Ypres, and the great monument to those 'with no known grave', bear silent testimony to the world-wide character of this most wasteful of wars.


THE WESTERN FRONT IN AUGUST 1914
KEY
Fortresses.
International boundaries.
Rivers.
Cities and towns.
Principal railways.
Land 0 – 100 metres (328 feet)
Land 100 – 200 metres (656 feet)
Land 200 – 300 metres (984 feet)
Land 300 – 400 metres (1312 feet)
Land over 400 metres
0 10 20
Miles
The object of this map is to show the physical nature of the countryside covered by the German advance until it was halted at the Marne in September. However, it will also be useful for reference to other Western Front battles later in the war.
Lille
Tournai
Ath
Nivelles
Liége
BELGIUM
Huy
Namur
Mons
Sambre
Charleroi
Douai
ARRAS
Maubeuge
Beaumont
Dinant
Ourthe
Marche
Philippeville
Cambrai
Avesnes
Le Cateau
Givet (Ft. de Charlemont)
Albert
Somme
Hirson
Bastogne
Péronne
Guise
Oise
AMIENS
St. Quentin
Vervins
Neufchateau
Diekirch
Mezieres
Charleville
Marle
Les Ayvelles
Sedan
LUXEMBOURG
Montdidier
Breteuil
La Fère
Noyon
Oise
Laon
Retheł
Montmédy
Longwy
Beauvais
FRANCE
Compiegne
Aisne
Vouziers
Diedenhofen (Thionville)
Clermont
Soissons
Braine
Vesle
Rheims
Meuse
Briey
Moselle
Senlis
Ourcq
Verdun
Suippes
Aisne
Argonne
Metz
Château Thierry
Marne
Ste. Menehould
Epernay
Meaux
Seine
Châlons-sur-Marne
St. Mihiel
PARIS
Montmirail
Petit Morin
Versailles
Coulommiers
Grand Morin
Vitry-le-François
Bar-le-Duc
Commercy
NANCY
Toul
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THE WESTERN FRONT IN OUTLINE 1914 - 1918
The campaign was really one prolonged battle involving territorial gains and losses completely disproportionate to the casualties involved. The basic stages were: the initial German advance of 1914 which was halted at the Marne and Aisne battles: the resulting "race to the sea" (a series of outflanking moves): the fairly stabilized trench line being established: the Allied gains and fights at the Somme and Verdun: the German offensives in the spring of 1918: the Allied advance towards Germany that halted with the Armistice on 11 November 1918.
KEY
Limit of German advance in September 1914.
General front from end of 1914 to 30 June 1916 (prior to Somme battles).
Allied gains in 1916 and 1917.
German gains during 1918 offensives.
Armistice line on 11 November 1918.
Frontiers in 1914.
Capital cities.
Other cities and towns.
NORTH SEA
HOLLAND
BELGIUM
GERMANY
FRANCE
Zeebrugge
Ostend
Bruges
Antwerp
Nieuport
Ghent
Dunkirk
Dixmude
Louvain
BRUSSELS
Liége
Calais
Ypres
Courtrai
Messines
Lille
Tournai
Boulogne
Neuve Chapelle
La Bassée
Givenchy
Lens
Mons
Namur
Charleroi
Valenciennes
Douai
Vimy
Arras
Cambrai
Maubeuge
Quéant
Landrecies
Le Cateau
HINDENBURG LINE
Albert
Somme
Ancre
Oise
Amiens
Péronne
St. Quentin
Mézières
Sedan
Dieppe
Noyon
La Fère
Laon
Montdidier
Aisne
Longwy
CHEMIN DES DAMES
Compiègne
Soissons
Vesle
Rheims
Verdun
Metz
Rouen
Marne
Seine
Château-Thierry
Épernay
St. Mihiel
Nancy
Lunéville
Meaux
Petit Morin
Grand Morin
PARIS
Meuse
Moselle
0
30
Miles
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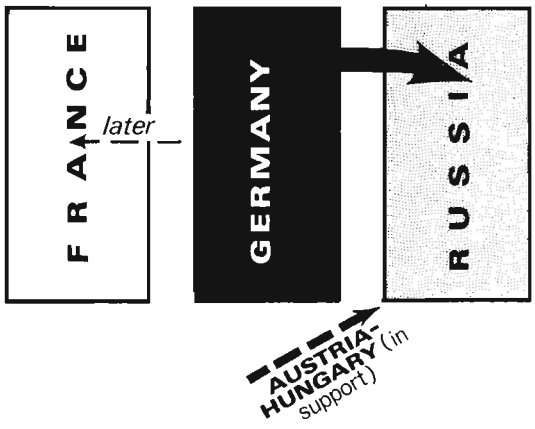

THE EAST-EUROPEAN WAR FRONTS IN AUGUST 1914
This map gives a general impression of the countryside to be fought over. It should be noted that German and Russian railway lines differed in gauges.
0
100
Miles
Baltic Sea
Libau
Memel
Dvinsk
Niemen
Kovno
Königsberg
Danzig
Vilna
Stettin
EAST PRUSSIA
Minsk
Berlin
Graudenz
Grodno
Notec
Thorn
Bialystok
Posen
Novo-Georgievsk
Bug
Oder
Warsaw
Elbe
Lodz
Vistula
Brest-Litovsk
Warta
POLAND
Breslau
Ivangorod
Kovel
Lublin
Prague
San
Lemberg
Brody
Cracow
Tarnov
GALICIA
Przemysl
VIENNA
Komoron
Danube
Tisza
Budapest
Pruth
Dniester
BESSARABIA
Mountains
Sereth
TRANSYLVANIA
RUMANIA
BELGRADE
BUCHAREST
DOBRUDJA
Black Sea
SERBIA
Danube
MONTENEGRO
BULGARIA
KEY
Forts or fortified towns.
Smaller forts.
Railways.
German "fortified zone".
Land over 600 feet.
Land over 3000 feet.
© Arthur Banks 1973


THE EASTERN FRONT IN OUTLINE
1914 - 1918
The battle fronts were not continuous and therefore, the lines on map are generalized. The trench system was not so detailed as on the Western Front and the limits of advances or retreats were not contemporaneous. For example, the Russian advance into East Prussia in 1914 was ended at Tannenberg before their large gains in Galicia were achieved.
KEY
Frontiers in 1914.
Capital cities.
Other cities and towns.
0
200
Miles
Gulf of Finland
ST. PETERSBURG (Petrograd)
Revel
Narva
Gulf of Riga
Pskov
Baltic Sea
Riga
Libau
Memel
Königsberg
Dvinsk
Moscow
Kovno
Dvina
Danzig
EAST PRUSSIA
Vilna
Smolensk
Tannenberg
Masuria
Grodno
Minsk
Narew
Niemen
Prasnysz
GERMANY
Vistula
R U S S I A
Warsaw
Brest-Litovsk
Pinsk
Pripet
POLAND
Lodz
Pripet Marshes
Desna
Radom
Lublin
Lutsk
Cracow
Lemberg
Rovno
Kiev
Jaroslav
Brody
San
Przemysl
Vorskha
GALICIA
Carpathian Mountains
Tarnopol
Dnieper
Stanislau
AUSTRIA-HUNGARY
Dniester
Bug
Nikolaiev
Budapest
Czernovitz
BUKOVINA
HUNGARY
Kishinev
Pruth
MOLDAVIA
RUMANIA
Odessa
Drava
Danube
Tisza
TRANSYLVANIA
BESS-ARABIA
Sava
BELGRADE
WALLACHIA
BUCHAREST
DOBRUDJA
MONTE-NEGRO
SERBIA
Danube
BULGARIA
KEY
Limit of Russian advances 1914 - 1915.
Limit of German advances 1915 - 1916.
Territory regained by Brusilov, June - August 1916.
German gains in September 1917.
Extent of German penetration into Russia by 3 March 1918 (Treaty of Brest-Litovsk).
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# GERMANY'S PRE-WAR NIGHTMARE OF HAVING TO FIGHT A LAND CAMPAIGN ON TWO FRONTS AT ONCE

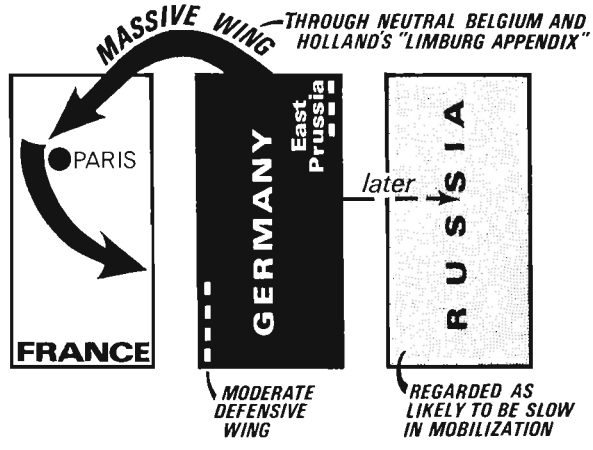
©Arthur Banks 1973

## ❶ The Elder Moltke's Appraisal (1879)



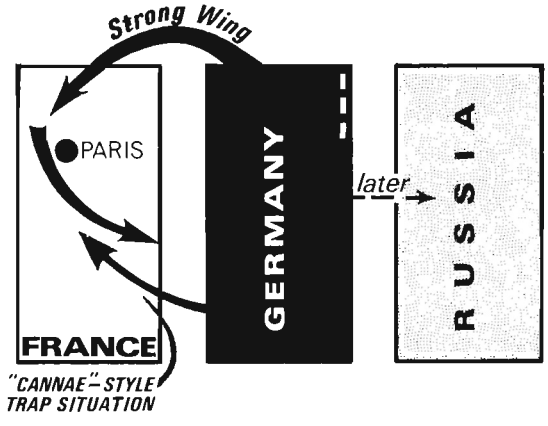

**RUSSIA** ***must be dealt with FIRST.*** Count von Waldersee (Moltke's successor) agreed with this provided that the offensive against Russia be conducted in summer weather.

## ❷ Schlieffen's Appraisal (1905)



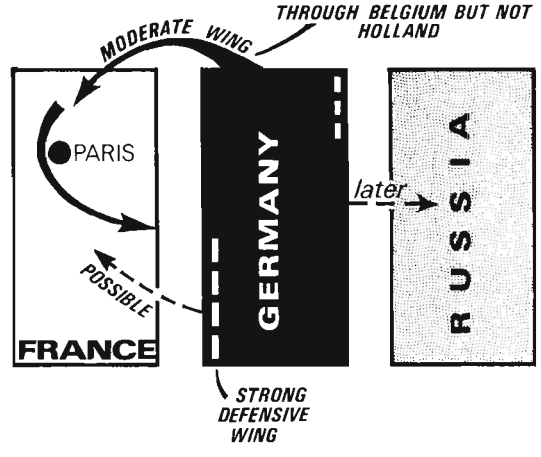

**FRANCE** ***must be dealt with FIRST in a rapid campaign while Russia is kept at bay by means of a holding or delaying operation in East Prussia. Austria in support.***

## ❸ Schlieffen's Revised Appraisal (1912)



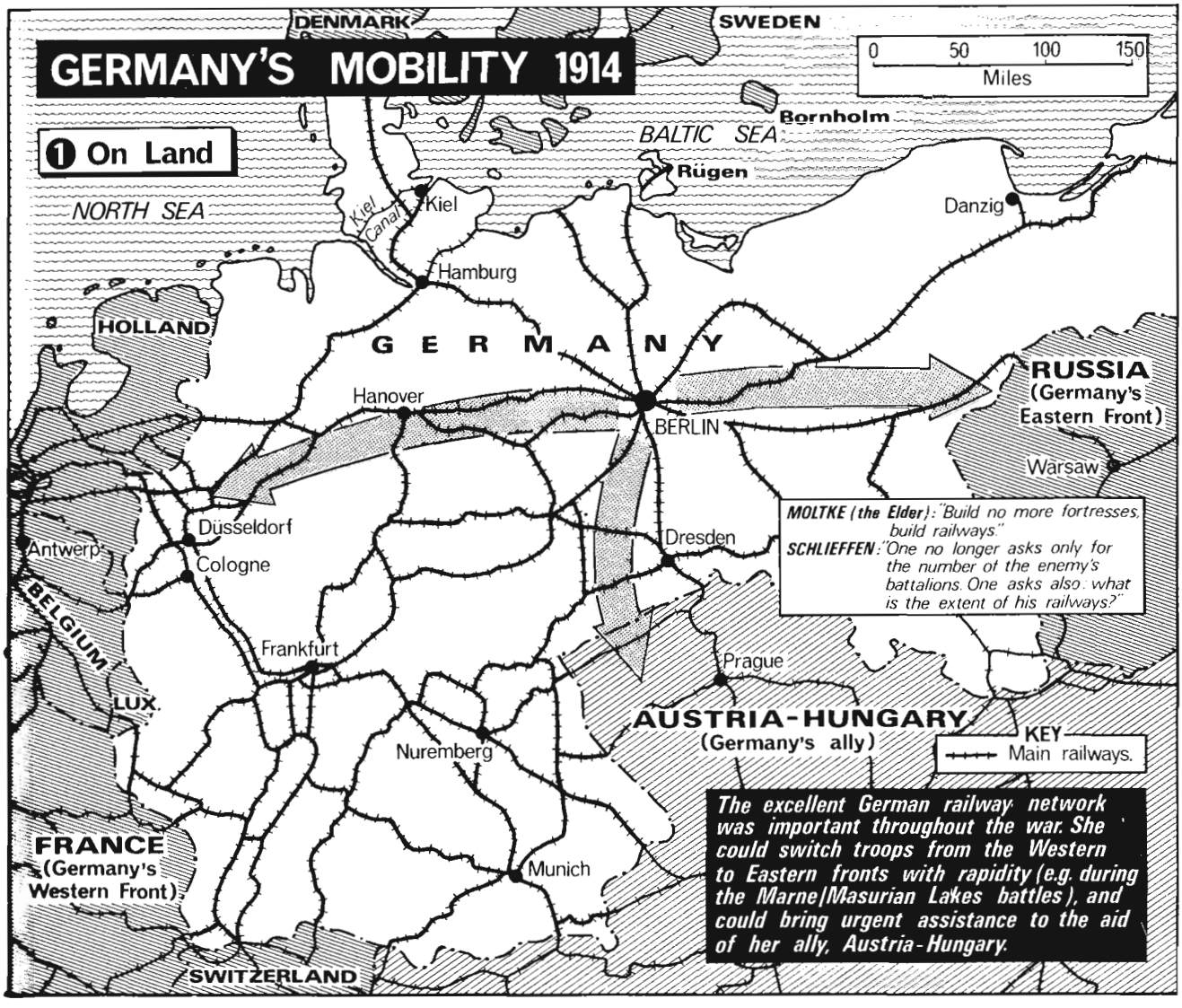

***Apparently Schlieffen studied Hannibal's victory at Cannae (216 B.C.) in detail and, as a consequence, revised his own plan. But the German right wing was to be kept strong.***

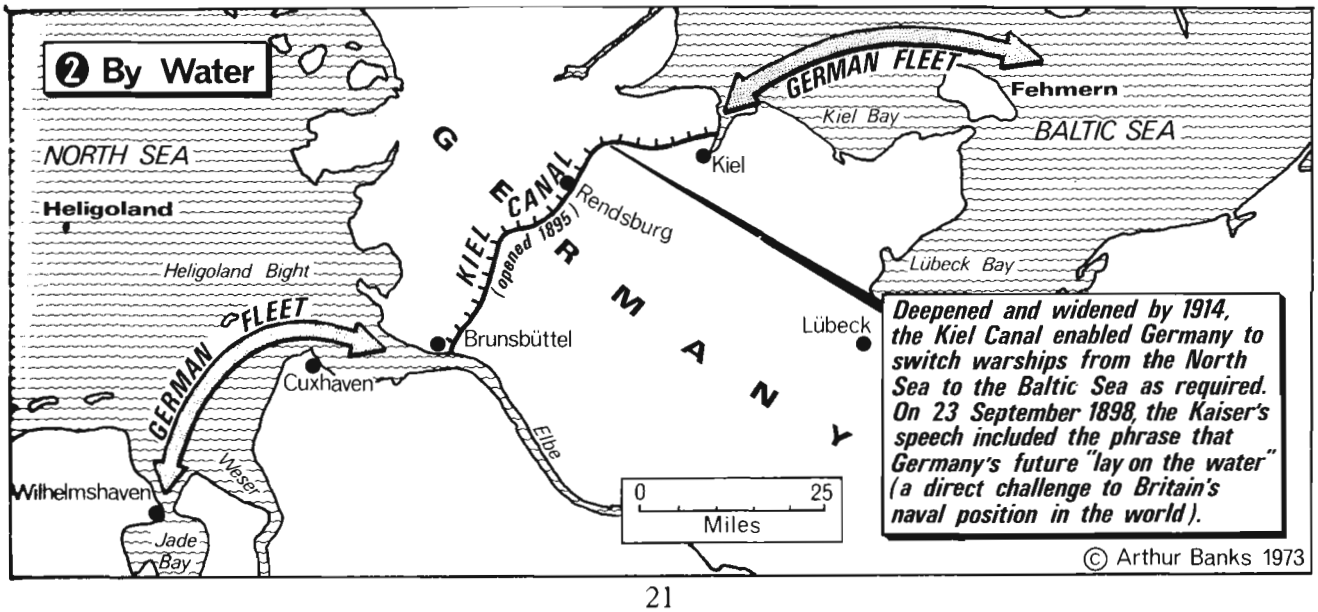
## ❹ The Younger Moltke's Appraisal (1914)



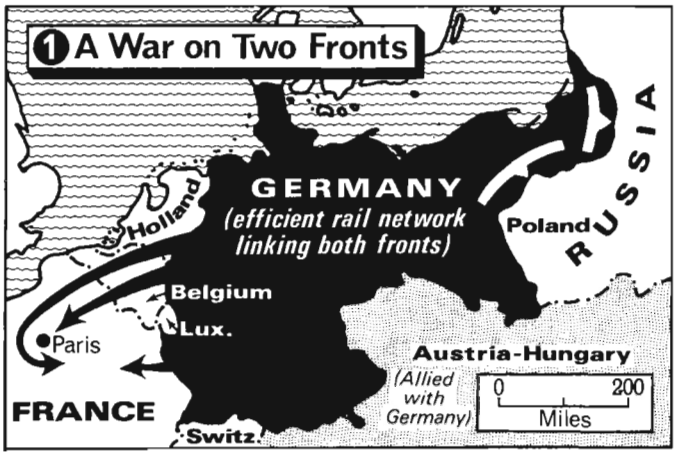

***Moltke (nephew of Bismarck's general) strengthened his defensive wing at the expense of his right wing: he omitted ersatz "back up" formations at rear of right wing armies.***

***In all plans, Germany had to attack first to obviate her fighting an all-out war on two fronts simultaneously: the two potential enemies had to be fought in sequence to avoid splitting Germany's main effort. Everything hinged upon her ability to switch troops from front to front with speed and precision. Even in August 1914, Germany was not powerful enough to launch two major offensives at the same time. Her fear was that SHE might be attacked first!***

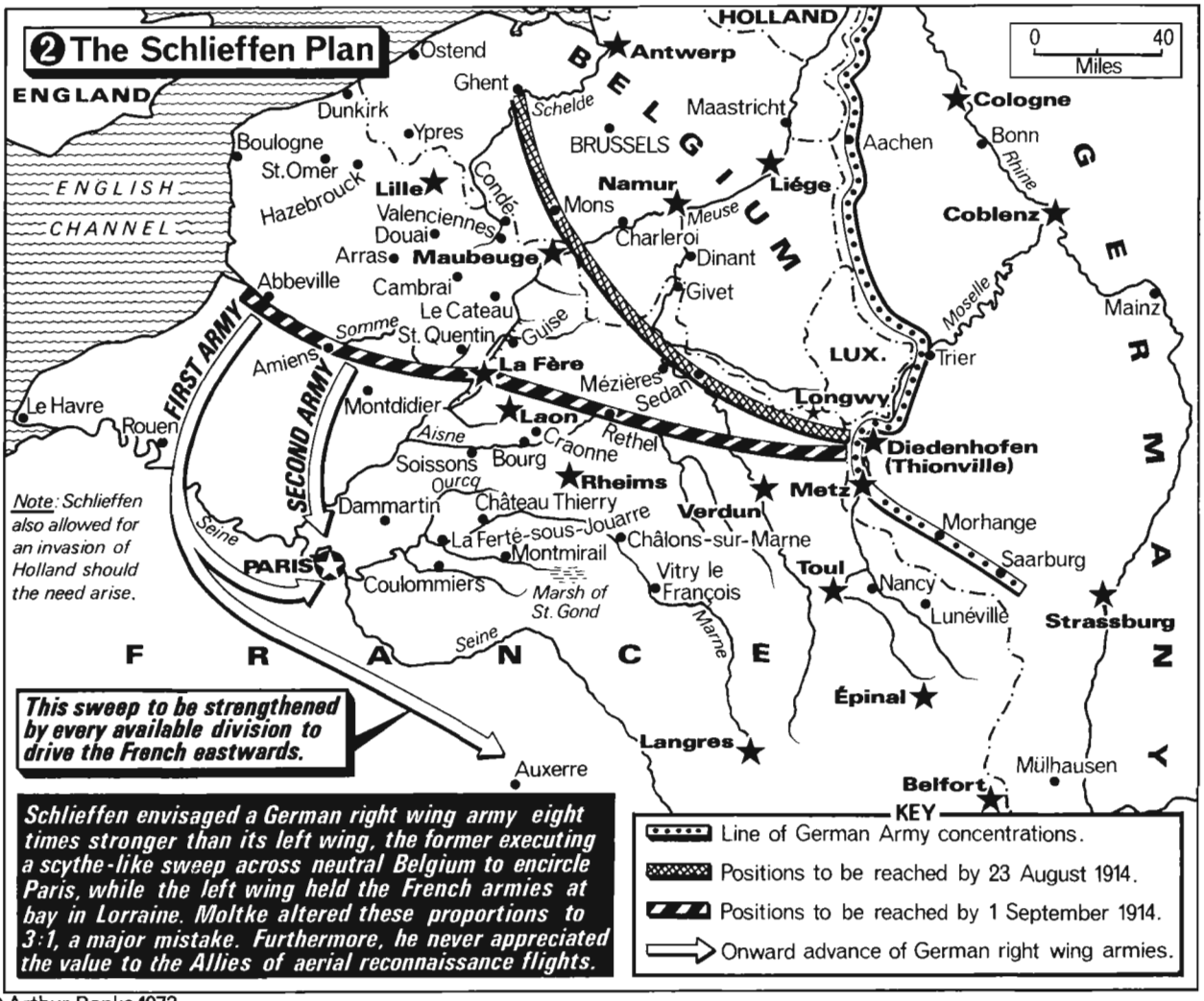

GERMANY'S MOBILITY 1914
1 On Land
DENMARK
SWEDEN
0 50 100 150
Miles
Bornholm
BALTIC SEA
Rügen
NORTH SEA
Kiel Canal
Kiel
Danzig
Hamburg
HOLLAND
GERMANY
RUSSIA
(Germany's Eastern Front)
Hanover
BERLIN
Warsaw
MOLTKE (the Elder): "Build no more fortresses, build railways."
SCHLIEFFEN: "One no longer asks only for the number of the enemy's battalions. One asks also: what is the extent of his railways?"
Düsseldorf
Antwerp
Cologne
Dresden
BELGIUM
Frankfurt
Prague
LUX.
AUSTRIA-HUNGARY
(Germany's ally)
KEY
Main railways.
Nuremberg
The excellent German railway network was important throughout the war. She could switch troops from the Western to Eastern fronts with rapidity (e.g. during the Marne/Masurian Lakes battles), and could bring urgent assistance to the aid of her ally, Austria-Hungary.
FRANCE
(Germany's Western Front)
Munich
SWITZERLAND


2 By Water
GERMAN FLEET
Fehmern
Kiel Bay
BALTIC SEA
NORTH SEA
Kiel
GERMANY
KIEL CANAL (opened 1895)
Rendsburg
Heligoland
Heligoland Bight
Lübeck Bay
GERMAN FLEET
Brunsbüttel
Lübeck
Cuxhaven
Elbe
Weser
Wilhelmshaven
Jade Bay
0 25
Miles
Deepened and widened by 1914, the Kiel Canal enabled Germany to switch warships from the North Sea to the Baltic Sea as required. On 23 September 1898, the Kaiser's speech included the phrase that Germany's future "lay on the water" (a direct challenge to Britain's naval position in the world).
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# GERMAN MILITARY PLANS 1905-1914

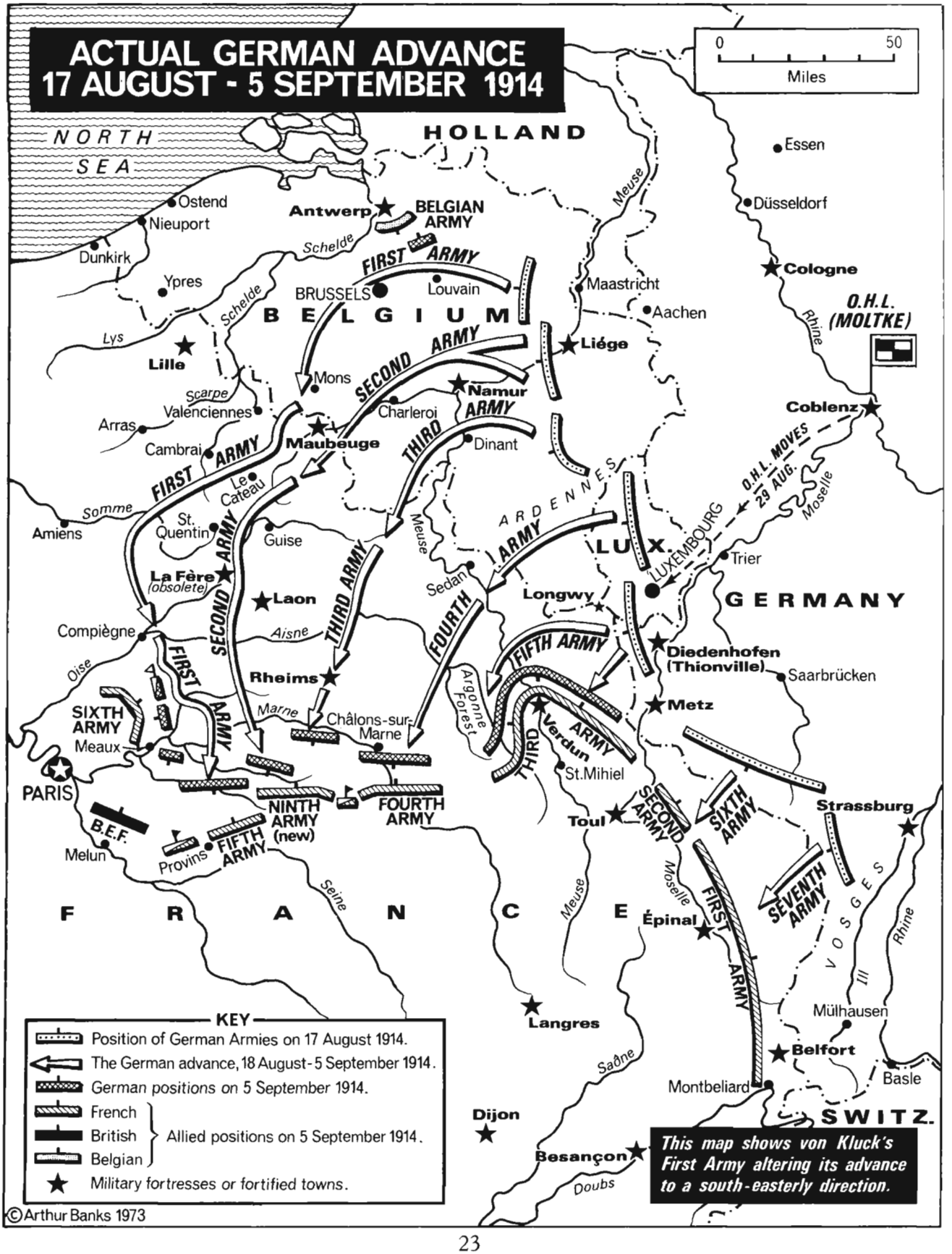


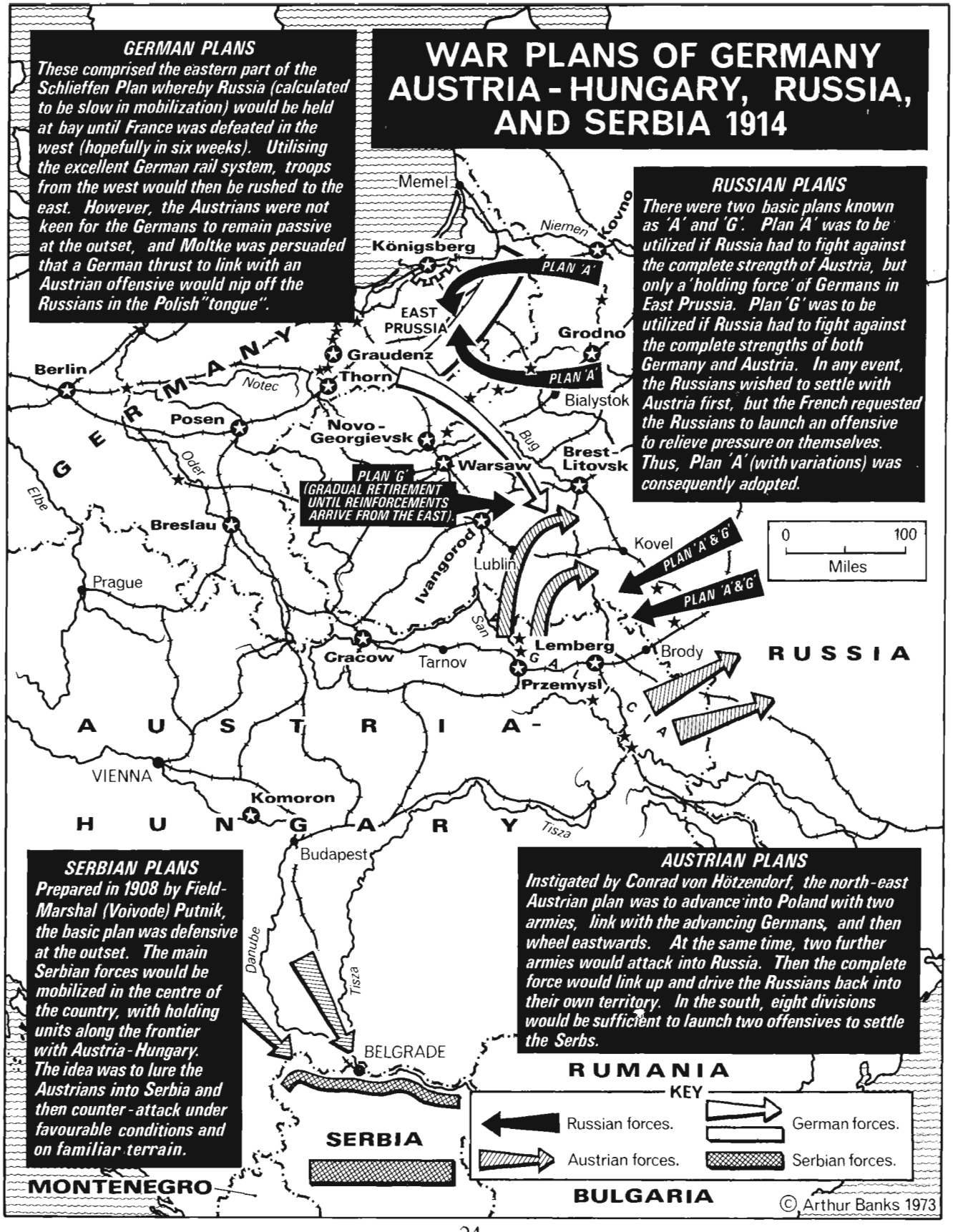

*In the years before 1914, German military planners were haunted by fear of an all-out war on two fronts simultaneously (that is, against Russia and France). In 1905, Field-Marshal Graf Alfred Schlieffen prepared a plan based on an assumption that Russia (calculated to be slower in mobilization than France) could be held temporarily at bay, while the bulk of German military power be directed at securing a rapid victory over France. Thus, Schlieffen's plan dealt almost exclusively with the Western Front. Moltke, Schlieffen's successor as Chief of the German General Staff, modified the scheme on several occasions before the war, and an amended version was put into operation in August 1914. Despite initial successes, the plan failed to produce the expected quick victory, and the Western Front became a scene of almost rigid trench warfare until 1918.*




*Schlieffen envisaged a German right wing army eight times stronger than its left wing, the former executing a scythe-like sweep across neutral Belgium to encircle Paris, while the left wing held the French armies at bay in Lorraine. Moltke altered these proportions to 3:1, a major mistake. Furthermore, he never appreciated the value to the Allies of aerial reconnaissance flights.*

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ACTUAL GERMAN ADVANCE
17 AUGUST - 5 SEPTEMBER 1914
0
50
Miles
NORTH SEA
HOLLAND
BELGIUM
FRANCE
GERMANY
LUX.
SWITZ.
Ostend
Nieuport
Dunkirk
Ypres
Antwerp
BELGIAN ARMY
Schelde
Lys
Lille
BRUSSELS
Louvain
FIRST ARMY
Maastricht
Aachen
Essen
Düsseldorf
Cologne
O.H.L. (MOLTKE)
Rhine
Meuse
Liége
SECOND ARMY
Mons
Namur
Charleroi
THIRD ARMY
Dinant
Scarpe
Valenciennes
Arras
Cambrai
Maubeuge
FIRST ARMY
Le Cateau
Somme
Amiens
St. Quentin
Guise
La Fère (obsolete)
SECOND ARMY
Laon
Coblenz
O.H.L. MOVES 29 AUG.
Moselle
ARDENNES
ARMY
Sedan
Longwy
LUXEMBOURG
Trier
FOURTH ARMY
FIFTH ARMY
Diedenhofen (Thionville)
Saarbrücken
Compiègne
Aisne
Oise
THIRD ARMY
Rheims
Argonne Forest
Metz
SIXTH ARMY
FIRST ARMY
Marne
Châlons-sur-Marne
Verdun
THIRD ARMY
St.Mihiel
Meaux
PARIS
NINTH ARMY (new)
FOURTH ARMY
Toul
SECOND ARMY
SIXTH ARMY
Strassburg
B.E.F.
Melun
Provins
FIFTH ARMY
Seine
Moselle
Meuse
Épinal
FIRST ARMY
SEVENTH ARMY
VOSGES
Ill
Rhine
Mülhausen
Langres
Belfort
Saône
Basle
Montbeliard
Dijon
Besançon
Doubs
KEY
Position of German Armies on 17 August 1914.
The German advance, 18 August - 5 September 1914.
German positions on 5 September 1914.
French
British
Belgian
Allied positions on 5 September 1914.
Military fortresses or fortified towns.
This map shows von Kluck's First Army altering its advance to a south-easterly direction.
©Arthur Banks 1973


WAR PLANS OF GERMANY AUSTRIA - HUNGARY, RUSSIA, AND SERBIA 1914
GERMAN PLANS
These comprised the eastern part of the Schlieffen Plan whereby Russia (calculated to be slow in mobilization) would be held at bay until France was defeated in the west (hopefully in six weeks). Utilising the excellent German rail system, troops from the west would then be rushed to the east. However, the Austrians were not keen for the Germans to remain passive at the outset, and Moltke was persuaded that a German thrust to link with an Austrian offensive would nip off the Russians in the Polish "tongue".
RUSSIAN PLANS
There were two basic plans known as 'A' and 'G'. Plan 'A' was to be utilized if Russia had to fight against the complete strength of Austria, but only a 'holding force' of Germans in East Prussia. Plan 'G' was to be utilized if Russia had to fight against the complete strengths of both Germany and Austria. In any event, the Russians wished to settle with Austria first, but the French requested the Russians to launch an offensive to relieve pressure on themselves. Thus, Plan 'A' (with variations) was consequently adopted.
Memel
Kovno
Niemen
Königsberg
PLAN 'A'
EAST PRUSSIA
Grodno
PLAN 'A'
Graudenz
Thorn
Berlin
Notec
Bialystok
GERMANY
Posen
Novo-Georgievsk
Bug
Brest-Litovsk
Oder
Warsaw
PLAN 'G' (GRADUAL RETIREMENT UNTIL REINFORCEMENTS ARRIVE FROM THE EAST).
Elbe
Breslau
Ivangorod
Lublin
Kovel
PLAN 'A' & 'G'
PLAN 'A' & 'G'
0
100
Miles
Prague
San
Lemberg
Brody
RUSSIA
Cracow
Tarnov
GALICIA
Przemysl
AUSTRIA-
VIENNA
Komoron
HUNGARY
Tisza
Budapest
SERBIAN PLANS
Prepared in 1908 by Field-Marshal (Voivode) Putnik, the basic plan was defensive at the outset. The main Serbian forces would be mobilized in the centre of the country, with holding units along the frontier with Austria-Hungary. The idea was to lure the Austrians into Serbia and then counter-attack under favourable conditions and on familiar terrain.
AUSTRIAN PLANS
Instigated by Conrad von Hötzendorf, the north-east Austrian plan was to advance into Poland with two armies, link with the advancing Germans, and then wheel eastwards. At the same time, two further armies would attack into Russia. Then the complete force would link up and drive the Russians back into their own territory. In the south, eight divisions would be sufficient to launch two offensives to settle the Serbs.
Danube
Tisza
BELGRADE
RUMANIA
KEY
Russian forces.
German forces.
Austrian forces.
Serbian forces.
SERBIA
MONTENEGRO
BULGARIA
© Arthur Banks 1973

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# FRENCH PRE-WAR MILITARY PLANS 1914

0 20 40 Miles

## 1 Joffre's 'Plan XVII'

*OFFICIALLY APPROVED BY WAR MINISTER ON 20 MAY 1913. ISSUED TO THE PROSPECTIVE ARMY COMMANDERS ON 15 MAY 1914.*

KEY
- Concentration areas of French Armies (numbered)
- Proposed thrusts
- Military fortresses

HOLLAND · Liége · Namur · Mons · Charleroi · BELGIUM · Dinant · Maubeuge · ARDENNES · Neufchâteau · LUXEMBOURG · Trier · Coblenz · GERMANY · Luxembourg · Mézières · Sedan · Longwy · Verdun · Rheims · Diedenhofen (Thionville) · Metz · Épernay · Châlons-sur-Marne · Vitry le François · Morhange · Château-Salins · Saarburg · Toul · Nancy · Strassburg · Lunéville · Charmes · Épinal · Colmar · Neu-Breisach · Mülhausen · Belfort · FRANCE

5 · 4 (IN RESERVE) · 3 · 2 · 1

PART OF FIRST ARMY

GROUPE D'ALSACE

SWITZ.

*This plan was prepared on an assumption that a Franco-German war, fought across common frontiers, would avoid violating nearby neutral territory (Belgium's status of neutrality had been "guaranteed" by France and Prussia [Germany] in 1839 & 1871). The plan involved a rapid mobilization of 3,000,000 troops and 4,000 troop-trains.*

## 2 Amended version of 'Plan XVII'

*NOT ORDERED UNTIL 2 AUGUST*

Liége · Mons · Charleroi · Namur · BELGIUM · Dinant · Maubeuge · ARDENNES · Neufchâteau · LUXEMBOURG · Lux. · Trier · Coblenz · GERMANY · Mézières · Sedan · Longwy · Rheims · Diedenhofen · Metz · Verdun · Épernay · Châlons-sur-Marne · Vitry le François · Morhange · Château-Salins · Saarburg · Toul · Nancy · Lunéville · Charmes · Épinal · Strassburg · Colmar · Neu-Breisach · Mülhausen · Belfort · FRANCE

1 · 2 · 3 · 4 · 5 · 6 · 7

KEY
- Concentration areas of French Armies (numbered), with attacks
- German Armies (concentrating)
- German thrusts into Luxembourg

*Following the German invasion of Luxembourg on 2 August 1914, a variation of the original plan was ordered. The French right wing was to remain as hitherto, but the Fourth Army was to move up between the Third and Fifth Armies to facilitate a strong left wing thrust.*

*FORMED ON 11 AUGUST*

ARMÉE D'ALSACE

SWITZ.

***The basic weakness of both plans lay in the fact that Germany could strike first, a position which the French felt morally unable to assume in 1914.***

# WESTERN FRONT FORTIFICATIONS AUGUST 1914

NORTH SEA
Dunkirk
canalisé
Yser (partly)
Lys
Schelde
Antwerp
SEE PLAN ON PAGE 29
BRUSSELS
B E L G I U M
HOLLAND
Cologne
Rhine
Lille
Escaut
Sambre
Meuse
Liége
SEE PLAN ON PAGE 28
SEE PLAN ON PAGE 28
Namur
Maubeuge
Coblenz
G E R M A N Y
Givet (Ft.de Charlemont)
LUXEMBOURG
Moselle
Hirson
Somme
Mézières
Les Ayvelles
La Fère
Laon
F R A N C E
Aisne
LUXEMBOURG
Montmédy
Longwy
Diedenhofen (Thionville)
FOR DETAILS OF THIS AREA SEE PLAN BELOW
Oise
Vesle
Rheims
Meuse
Verdun
Metz
Bitsch
Marne
PARIS
SEE PLAN BELOW
Châlons -sur-Marne
St.Mihiel
Petit Morin
Grand Morin
Toul
Nancy
Strassburg
Seine
Aube
Marne
Moselle
Fort de Manonviller
Mutzig
Epinal
Rhine
Neu-Breisach
Ft.Remiremont
Ft.Giromagny
Neuenburg
Istein
Langres
Belfort
Hüningen
SWITZERLAND

Fort des Sarts
Ft. de Bersillies
Ft. de Leveau
Ft. de Boussois
Maubeuge
Louvron
Fort Rostaing
Fort d'Hautmont
Fort du Bourdiau
0 2 Miles

0 40 Miles

**KEY**

★ Forts maintained in good operational order prior to the opening of hostilities.

☆ Other forts, the maintenance of which was neglected in the pre-war period.

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## DEFENCES OF PARIS

0 1 2 3 4 Miles

Ft.de Montlignon
Ft. de Domont
Ft. d'Ecouen
Ft.de Montmorency
Montmorency
Seine
Ft. de Cormeilles
Ft.de Stains
Ft. d'Arnouville
Colombes
Ft. de la Briche
St. Denis
Ft.de l'Est
Ft.de Vaujours
Ft.d'Aubervilliers
Le Raincy
St.Germain-en Laye
Ft.Romainville
Ft.de Noisy
Ft.de Chelles
Ft. du Mt. Valerien
Ft. de Marly
Boulogne
PARIS
Ft.de Rosny
Ft.de Nogent
Ft.de Villiers
Ft. de St.Cyr
Versailles
Ft. d'Issy
St. Maur
Ft. de Vanves
Ft.d'Ivry
Ft. de Charenton
Ft.de Champigny
Ft. de Châtillon
Ft. de Montrouge
Ft. de Bicêtre
Villejuif
Ft. du Haut Buc
Réduit de Verrières
Ft.de Sucy
Ft. de Villeras
Ft.de Limeil
Ft. de Palaiseau
Ft. de Villeneuve-St.Georges
Seine

KEY
★ Forts
^ Redoubts
Roads
Railways

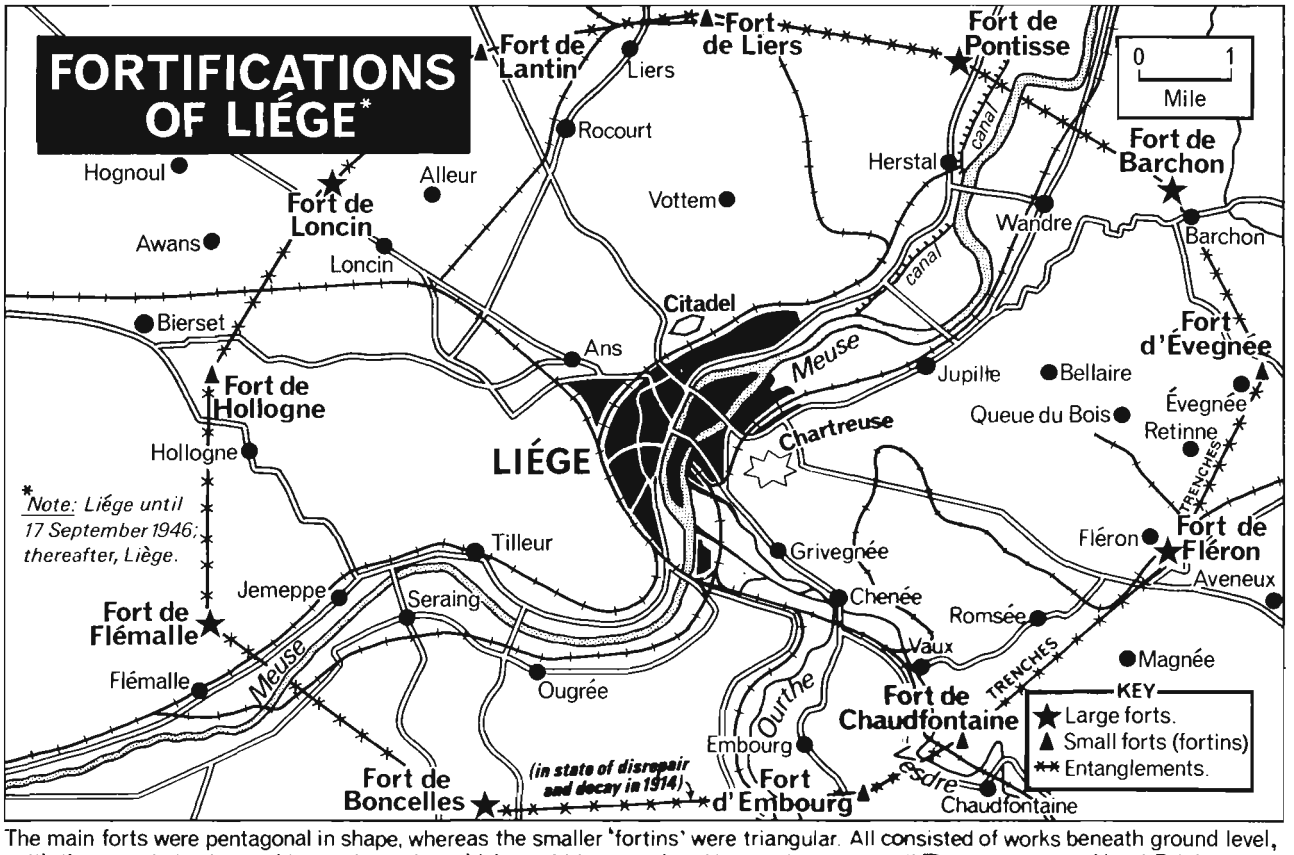
## FORTIFICATIONS TO THE NORTH-EAST OF PARIS

0 5 10 Miles

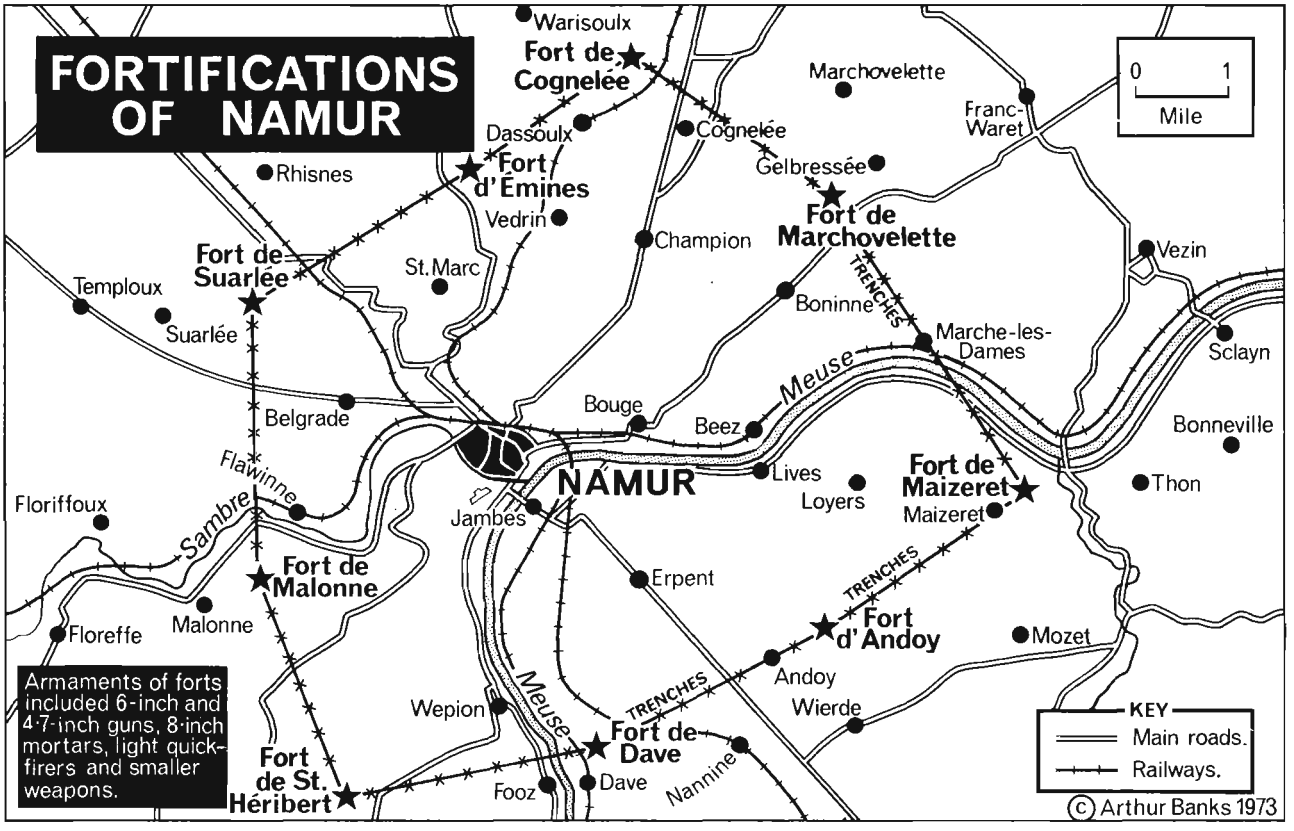
St.Quentin
Oise
Vervins
Ribemont
Somme
Marle
Serre
Ft.de Vendeuil
Ft.de Jussy
Ft.de Mayot
Ft.de Liez
Ft.de Noureuil
LA FÈRE
Ft.de Mont de Joie
Chauny
Crépy
Ft. d'Aurigny
LAON
Sissonne
Oise
Ailette
Ft.de Laniscourt
Aisne
Ft.de Monthérault
Ft.de la Malmaison (obsolete)
Craonne
Aisne
Ft.de Condé (obsolete)
Soissons
Ft.de Brimont
Moulin
Ft de Fresnes
Fismes
Ft.de St.Thierry
Ft.de Vitry
Chenoy
Ft.de la Vigie
Vesle
RHEIMS
de Berru
Ft.de Vrigny
Ft. de la Pompelle
Ft. Nogent l'Abbesse
Ft.de Montbré

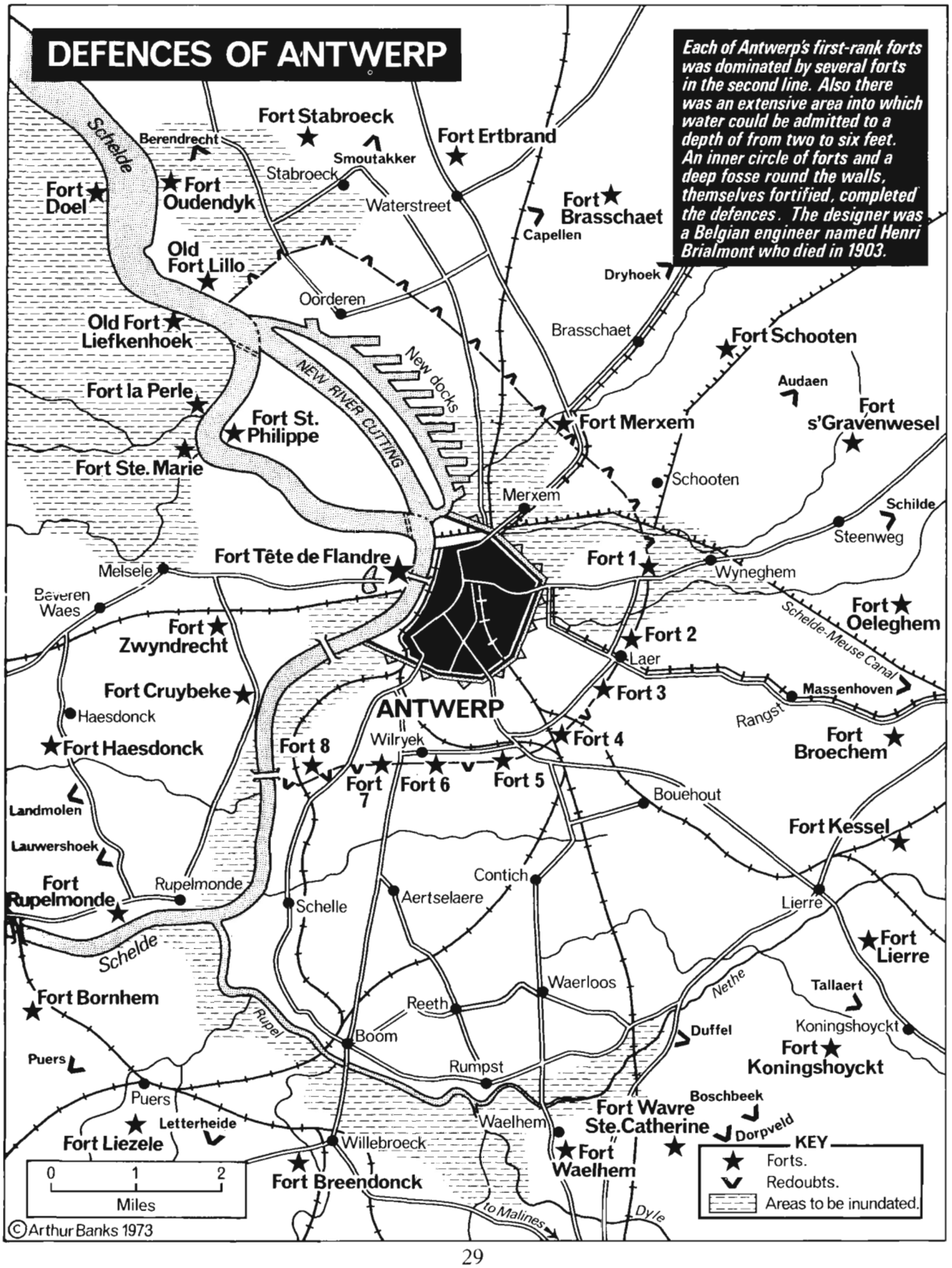
KEY
☆ Forts
^ Redoubts and batteries
Forests and woods
Roads
Railways
Canals

*This map depicts the system of fortifications that adorned the Western Front area prior to the commencement of hostilities. Many of the northern French fortresses were virtually obsolete or in a state of disrepair and the three Belgian fortresses had been designed in the 1880's and 1890's, long before the advent of "Dicke Bertha" and "Schlanke Emma".*




The main forts were pentagonal in shape, whereas the smaller 'fortins' were triangular. All consisted of works beneath ground level, with the guns being housed in steel cupolas which could be raised and lowered again at will. The designer was Henri Brialmont.




DEFENCES OF ANTWERP
Each of Antwerp's first-rank forts was dominated by several forts in the second line. Also there was an extensive area into which water could be admitted to a depth of from two to six feet. An inner circle of forts and a deep fosse round the walls, themselves fortified, completed the defences. The designer was a Belgian engineer named Henri Brialmont who died in 1903.
Schelde
Berendrecht
Fort Stabroeck
Smoutakker
Fort Ertbrand
Stabroeck
Waterstreet
Fort Doel
Fort Oudendyk
Fort Brasschaet
Capellen
Old Fort Lillo
Dryhoek
Oorderen
Old Fort Liefkenhoek
Brasschaet
Fort Schooten
New docks
NEW RIVER CUTTING
Audaen
Fort la Perle
Fort St. Philippe
Fort Merxem
Fort s'Gravenwesel
Fort Ste. Marie
Schooten
Merxem
Schilde
Steenweg
Fort Tête de Flandre
Fort 1
Melsele
Wyneghem
Beveren Waes
Fort Oeleghem
Fort Zwyndrecht
Schelde-Meuse Canal
Fort 2
Laer
Fort Cruybeke
Fort 3
Massenhoven
Haesdonck
ANTWERP
Rangst
Fort Haesdonck
Wilryek
Fort 4
Fort Broechem
Fort 8
Fort 7
Fort 6
Fort 5
Landmolen
Bouehout
Lauwershoek
Fort Kessel
Contich
Fort Rupelmonde
Rupelmonde
Aertselaere
Schelle
Lierre
Schelde
Fort Lierre
Fort Bornhem
Waerloos
Nethe
Tallaert
Reeth
Rupel
Duffel
Koningshoyckt
Boom
Puers
Rumpst
Fort Koningshoyckt
Boschbeek
Puers
Fort Wavre Ste.Catherine
Waelhem
Letterheide
Dorpveld
Fort Liezele
Willebroeck
Fort Waelhem
KEY
Forts.
Redoubts.
Areas to be inundated.
Fort Breendonck
to Malines
Dyle
0 1 2
Miles
© Arthur Banks 1973

# ARMY CONCENTRATIONS ON THE WESTERN FRONT AUGUST 1914

0 20 40 60 80 100
Miles

**BELGIAN HIGHER COMMAND**
*Commander-in-Chief:* King Albert
*Chief of the General Staff:* Lt.-General Chevalier de Selliers de Moranville

**GERMAN HIGHER COMMAND**
*Commander-in-Chief:* William, German Emperor
*Chief of the General Staff:* Generaloberst von Moltke

**TROOP STRENGTHS ON 17 AUGUST 1914**

GERMAN ARMIES
1 320,000 2 260,000 3 180,000
4 180,000 5 200,000 6 220,000
7 125,000 Total 1,485,000

FRENCH ARMIES
1 256,000 2 200,000 3 168,000
4 193,000 5 254,000
Total 1,071,000

B.E.F.
Total 110,000

BELGIAN ARMY
Total 117,000

ANTWERP
Schelde
Demer
Diest
Louvain
Hasselt
BRUSSELS
Gette
FIRST ARMY (von Kluck)
Wavre
St. Trond
HOLLAND
B E L G I U M
LIÉGE
Perwez
Gembloux
NAMUR
SECOND ARMY (von Bülow)
Meuse
Mons
17 August
Charleroi
Sambre
Sordet
15 Aug
8 Inf Bde
Malmédy
18 August
Valenciennes
MAUBEUGE
Dinant
Sordet
THIRD ARMY (von Hausen)
Givet
1 CORPS
Meuse
Sordet's Cavalry Corps
B.E.F. Concentration Area
FIFTH ARMY (Lanrezac)
Mézières
Neufchâteau
6 August
LA FÈRE
Sedan
Longwy
LAON
Aisne
FOURTH ARMY (Langle de Cary)
THIRD ARMY (Ruffey)
FIRST ARMY
COLOGNE
Aachen
Rhine
SECOND ARMY
COBLENZ
Moselle
THIRD ARMY
FOURTH ARMY (Grand Duke of Württemberg)
LUX.
Trier
FOURTH ARMY
LUXEMBOURG
FIFTH ARMY (Imperial Crown Prince of Prussia)
DIEDENHOFEN (Thionville)
FIFTH ARMY

*2 August 1914, Luxembourg is occupied in a few hours by German troops from Diedenhofen and Trier.*

**THE CAMPAIGN IN LORRAINE**
*19 August* French take Château-Salins and Saarburg.
*21 August* Germans from Metz defeat French, who retire to Nancy and Lunéville.
*25 August* French drive back Germans.

RHEIMS
VERDUN
Meuse
Moselle Position
METZ
SIXTH ARMY
SIXTH ARMY (Crown Prince of Bavaria)
G E R M A N Y
Épernay
Châlons-sur-Marne
St. Mihiel
Château-Salins
F R A N C E
Commercy
TOUL
NANCY
Saarburg
Vitry le François
Marne
Lunéville
Bruche
STRASSBURG
SECOND ARMY (de Castelnau)
19 Aug.
SEVENTH ARMY (von Heeringen)
FIRST ARMY (Dubail)
Pau
Col de Saales
14 Aug.
Rhine
SEVENTH ARMY
Charmes
ÉPINAL
COLMAR
NEU-BREISACH
19 Aug.
10 Aug.
7 Aug.
Thann
8 Aug.
MÜLHAUSEN
LANGRES
"THE PENTAGON"
BELFORT
Altkirch
7 Aug.
BASLE
DIJON
BESANÇON
SWITZERLAND

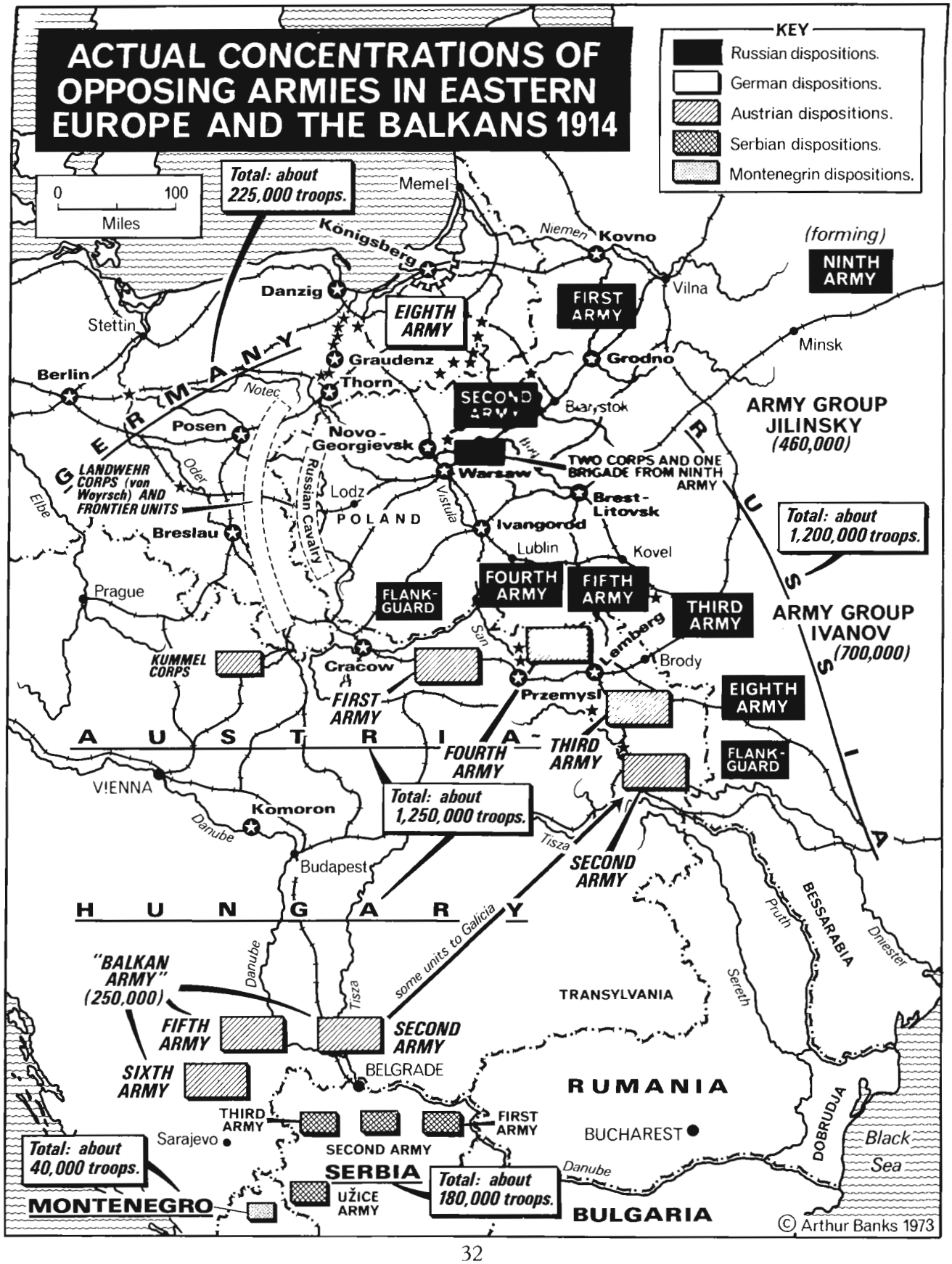
**BRITISH HIGHER COMMAND**
*Commander-in-Chief:* Field-Marshal Sir J.D.P. French
*Chief of the General Staff:* Lt.-General Sir A.J. Murray

**FRENCH HIGHER COMMAND**
*Commander-in-Chief:* General J.J.C. Joffre
*Chief of the General Staff:* General Belin

**KEY**
- British Expeditionary Force (beginning concentration 14 August).
- French Armies (concentration areas on 14 August).
- Belgian Army (positions on 17 August).
- German Armies (concentration areas on 14 August).
- German Armies (positions on 17 August).
- Military fortresses or fortified towns.
- Defended areas.

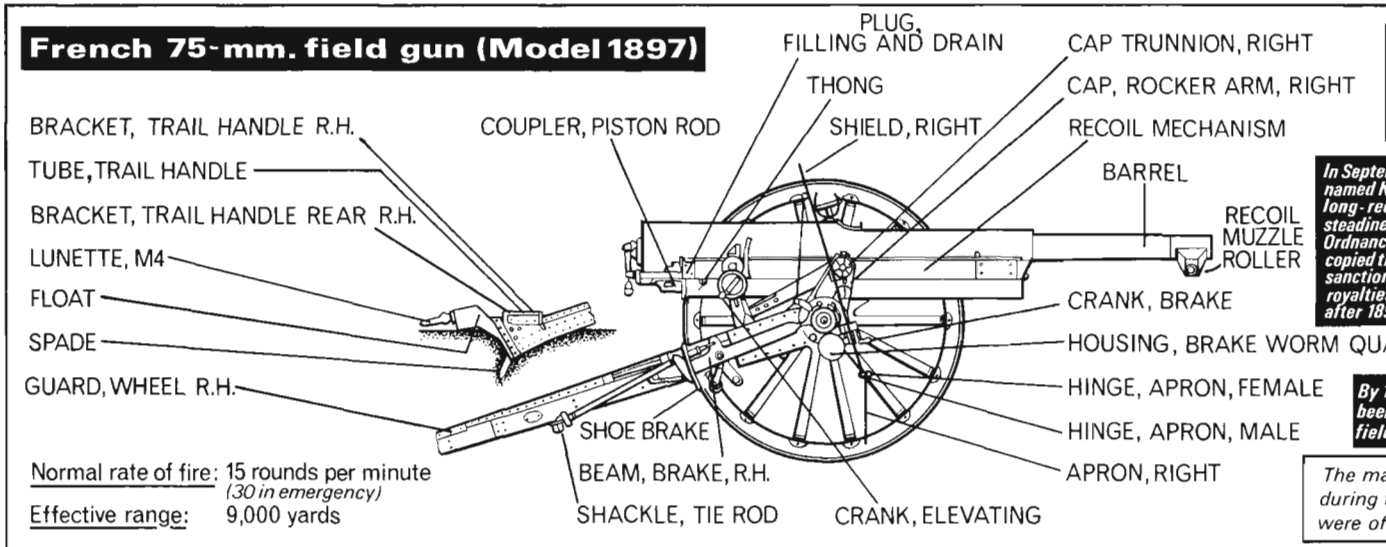
**THE CAMPAIGN IN ALSACE**
*7 August* French from Belfort take Altkirch and Thann.
*8 August* French capture Mülhausen.
*10 August* Germans from Colmar and Neu-Breisach re-take Mülhausen.
*19 August* French re-occupy Mülhausen; other forces move towards Colmar.
*28 August* French retire, leaving a small force to occupy Thann.

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ACTUAL CONCENTRATIONS OF OPPOSING ARMIES IN EASTERN EUROPE AND THE BALKANS 1914
KEY
Russian dispositions.
German dispositions.
Austrian dispositions.
Serbian dispositions.
Montenegrin dispositions.
0
100
Miles
Total: about 225,000 troops.
Memel
Königsberg
Niemen
Kovno
(forming)
NINTH ARMY
Danzig
EIGHTH ARMY
FIRST ARMY
Vilna
Stettin
Minsk
Graudenz
Grodno
Berlin
Thorn
Notec
SECOND ARMY
Bialystok
ARMY GROUP JILINSKY (460,000)
Posen
Novo-Georgievsk
Bug
Oder
Warsaw
TWO CORPS AND ONE BRIGADE FROM NINTH ARMY
LANDWEHR CORPS (von Woyrsch) AND FRONTIER UNITS
Russian Cavalry
Lodz
Vistula
Brest-Litovsk
Elbe
POLAND
Ivangorod
Total: about 1,200,000 troops.
Breslau
Lublin
Kovel
FOURTH ARMY
FIFTH ARMY
Prague
FLANK-GUARD
THIRD ARMY
ARMY GROUP IVANOV (700,000)
Sun
Lemberg
Brody
KUMMEL CORPS
Cracow
FIRST ARMY
Przemysl
EIGHTH ARMY
AUSTRIA-HUNGARY
FOURTH ARMY
THIRD ARMY
FLANK-GUARD
VIENNA
Total: about 1,250,000 troops.
Komoron
Danube
Tisza
SECOND ARMY
Budapest
Pruth
BESSARABIA
Dniester
some units to Galicia
"BALKAN ARMY" (250,000)
TRANSYLVANIA
Sereth
FIFTH ARMY
SECOND ARMY
SIXTH ARMY
BELGRADE
RUMANIA
THIRD ARMY
FIRST ARMY
Sarajevo
BUCHAREST
DOBRUDJA
Black Sea
SECOND ARMY
Total: about 40,000 troops.
SERBIA
Danube
Total: about 180,000 troops.
MONTENEGRO
UŽICE ARMY
BULGARIA
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# THREE IMPORTANT GUNS IN 1914

## French 75-mm. field gun (Model 1897)




Normal rate of fire: 15 rounds per minute *(30 in emergency)*

Effective range: 9,000 yards

***The buffer recoil action enabled the gun to be fired repeatedly, thus avoiding relaying.***

***In September 1891, a German engineer named Konrad Haussner patented a long-recoil hydraulic brake to ensure steadiness during rapid fire. The French Ordnance Factory Director at Puteaux copied this, construction finally being sanctioned in February 1893, but no royalties were paid to the inventor after 1894.***

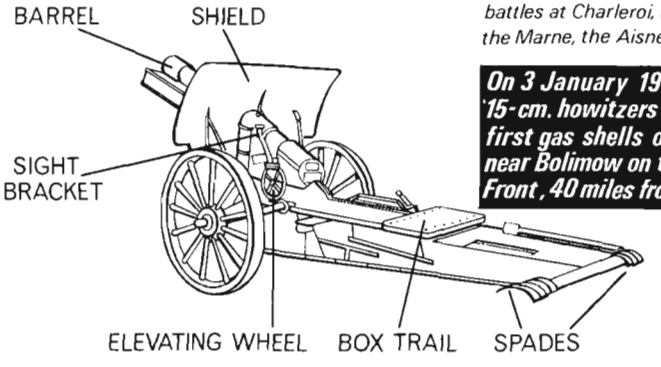
***By 1896 the German artillery had been rearmed with the 77-mm. field gun, a less-efficient weapon.***

*The majority of 75-mm's used during the campaigns of 1914 were of the 1897 version.*

## German 15-cm. field howitzer (Model 1913)

Normal rate of fire: 5 rounds per minute

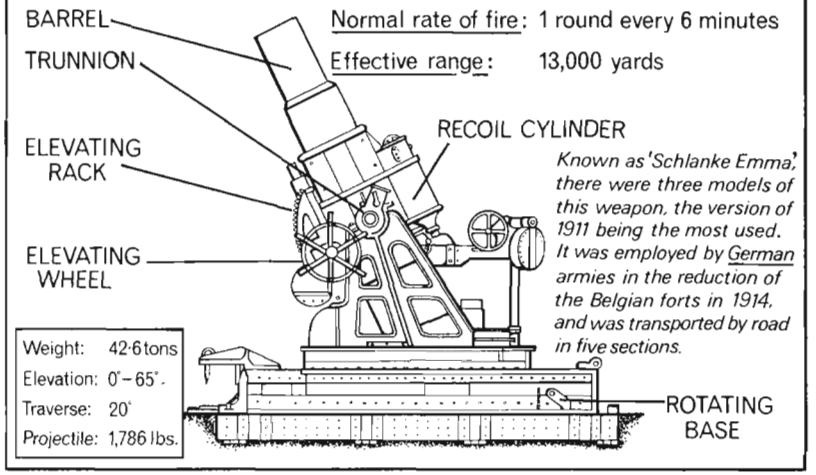
Effective range: 9,300 yards




*There were four models of this weapon. The 1913 version was employed during the 1914 battles at Charleroi, Dinant, Mons, the Marne, the Aisne, etc.*

***On 3 January 1915, German 15-cm. howitzers fired the first gas shells of the war near Bolimow on the Eastern Front, 40 miles from Warsaw.***

## Austrian 30·5-cm. howitzer (Model 1911)




Normal rate of fire: 1 round every 6 minutes

Effective range: 13,000 yards

Weight: 42·6 tons
Elevation: 0°–65°
Traverse: 20°
Projectile: 1,786 lbs.

*Known as 'Schlanke Emma', there were three models of this weapon, the version of 1911 being the most used. It was employed by German armies in the reduction of the Belgian forts in 1914, and was transported by road in five sections.*

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# RIVAL INFANTRY DIVISIONAL ORGANIZATIONS IN 1914

*The infantry division was the standard component of corps and armies. These diagrams give approximate comparisons between the main contending forces.*

## GERMAN

*Approx. 17,000 men, 72 guns*

*24 MACHINE GUNS*

**DIVISIONAL HEADQUARTERS**

- *Bridging train*
- *Sanitary company*
- *Pioneer company*
- *Telephone detachment*

- *Six field hospitals*
- *Veterinary detachment*
- *Infantry ammunition train*
- *Artillery ammunition train*
- *Divisional supply train*

**INFANTRY BRIGADE**
*REGIMENT* — *Three battalions*
*REGIMENT* — *Three battalions*

**INFANTRY BRIGADE**
*REGIMENT* — *Three battalions*
*REGIMENT* — *Three battalions*

***CAVALRY REGIMENT***
*Four squadrons*

**FIELD ARTILLERY BRIGADE**
*REGIMENT* — *Two groups of three 6-gun batteries*
*REGIMENT* — *Two groups of three 6-gun batteries*

*Note: in one regiment, one group was a Field Howitzer group of three 6-gun batteries*

*Two divisions formed a corps, which also included*

- ***HEAVY HOWITZER BATTALION*** — *Four 4-gun batteries*
- *Wireless detachment*, *Telegraph detachment*, *Telephone detachment*
- *Artillery ammunition train*, *Air detachment*, *Signals detachment*
- *Bridging train*, *Searchlight section*, *Field bakeries*

## FRENCH

*Approx. 15,000 men, 36 guns*

*24 MACHINE GUNS*

**DIVISIONAL HEADQUARTERS**

- *Engineer company*

- *Divisional supply train*
- *Stretcher bearer group*
- *Cavalry Squadron*

**INFANTRY BRIGADE**
*REGIMENT* — *Three battalions*
*REGIMENT* — *Three battalions*

**INFANTRY BRIGADE**
*REGIMENT* — *Three battalions*
*REGIMENT* — *Three battalions*

**FIELD ARTILLERY**
*GROUP* — *Three 4-gun batteries*
*GROUP* — *Three 4-gun batteries*
*GROUP* — *Three 4-gun batteries*

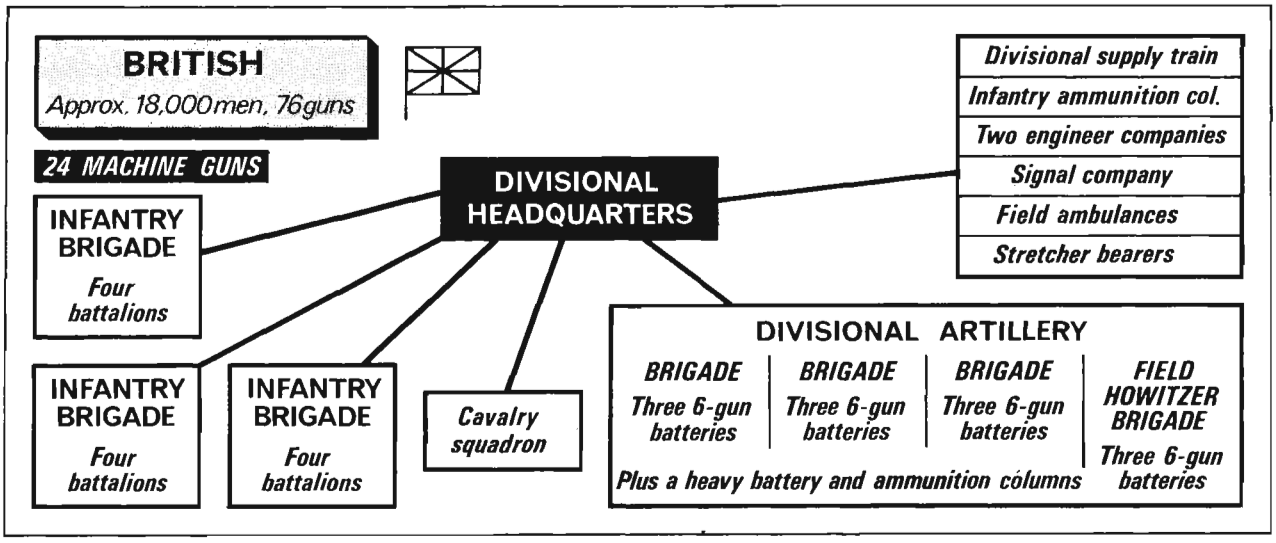
*Normally, two divisions formed a corps (in 1914, VI Corps and the Colonial Corps had three). A corps also included*

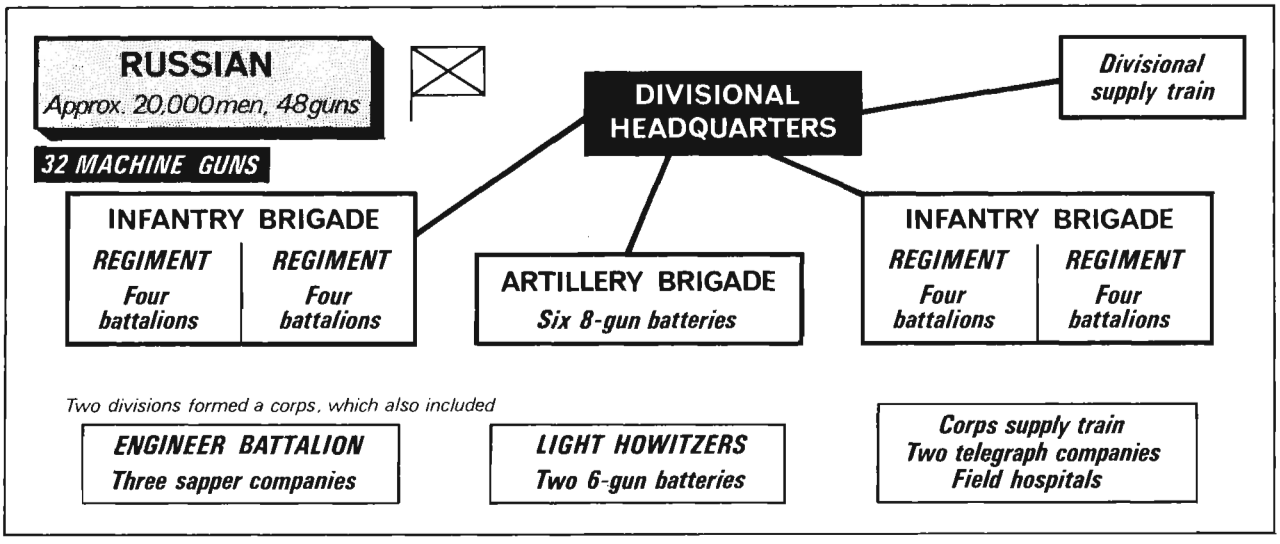
- **RESERVE INFANTRY BRIGADE** — *TWO REGIMENTS*
- **ARTILLERY** — *Four groups of three 4-gun batteries*

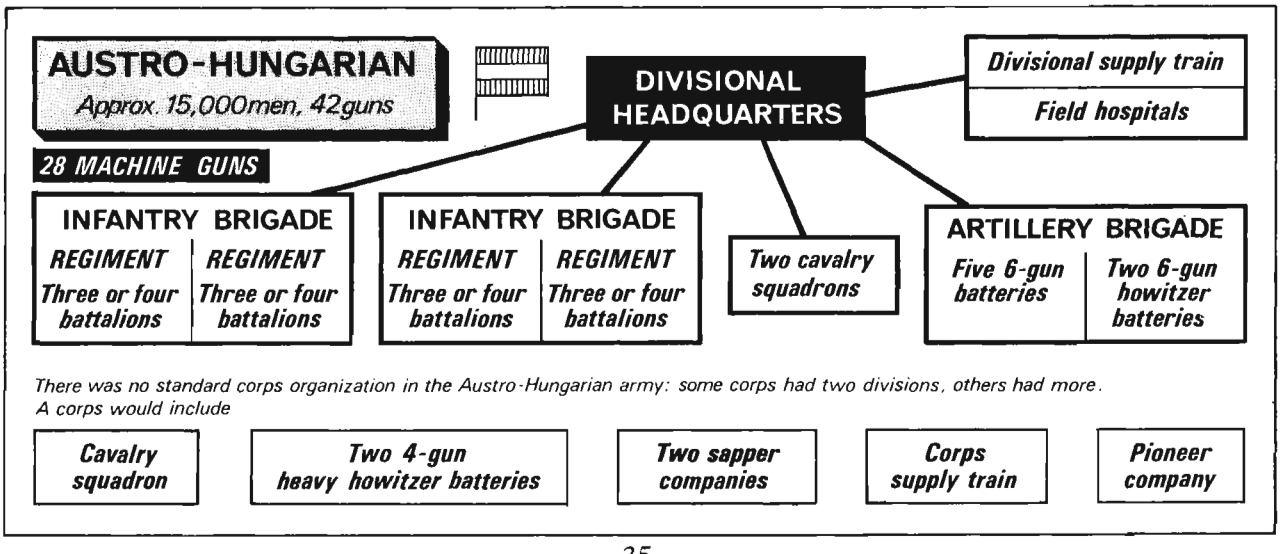
- ***CAVALRY REGIMENT*** — *Four squadrons*
- *Four engineer companies*, *Telegraph detachment*, *Searchlight section*

- *Corps supply train*
- *Artillery ammunition train*
- *Infantry ammunition train*
- *Eight field hospitals*
- *Six hospital sections*
- *Automobile medical section*
- *Corps stretcher bearer section*

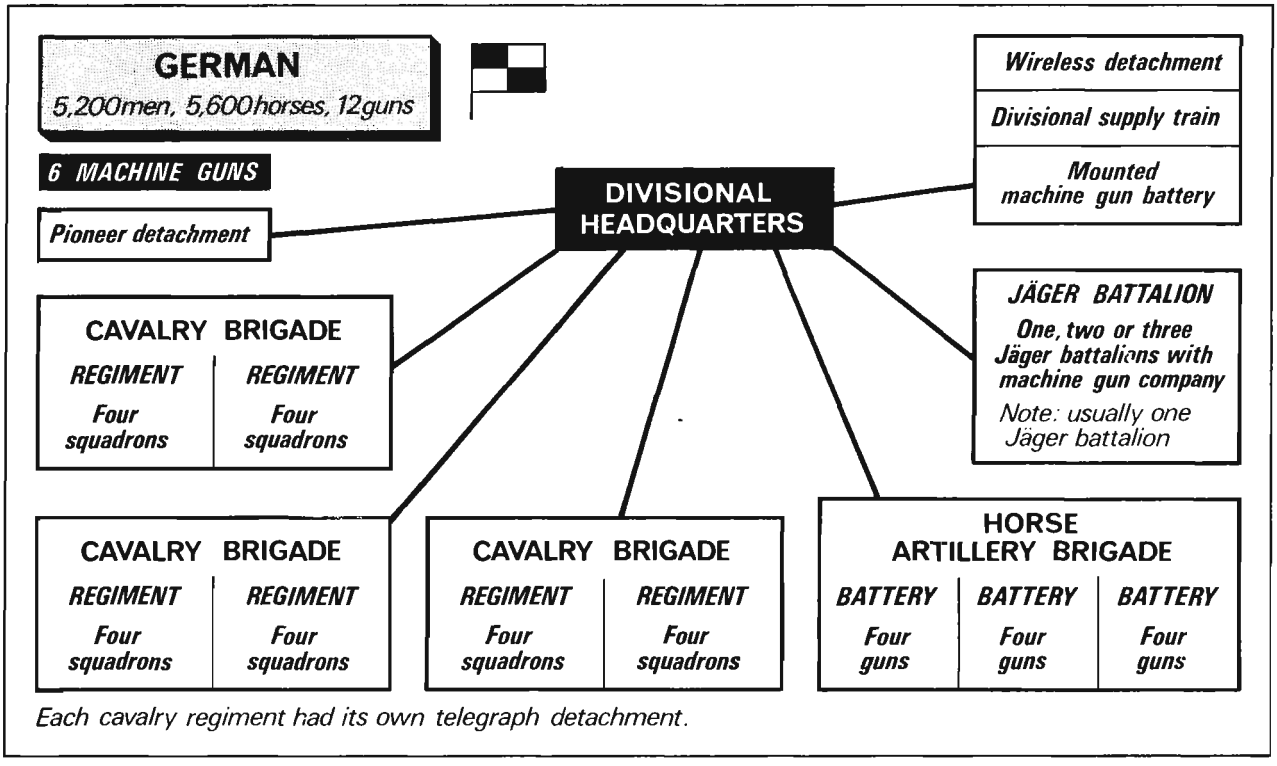
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BRITISH
Approx. 18,000 men, 76 guns
24 MACHINE GUNS
DIVISIONAL HEADQUARTERS
Divisional supply train
Infantry ammunition col.
Two engineer companies
Signal company
Field ambulances
Stretcher bearers
INFANTRY BRIGADE
Four battalions
INFANTRY BRIGADE
Four battalions
INFANTRY BRIGADE
Four battalions
Cavalry squadron
DIVISIONAL ARTILLERY
BRIGADE
Three 6-gun batteries
BRIGADE
Three 6-gun batteries
BRIGADE
Three 6-gun batteries
FIELD HOWITZER BRIGADE
Three 6-gun batteries
Plus a heavy battery and ammunition columns

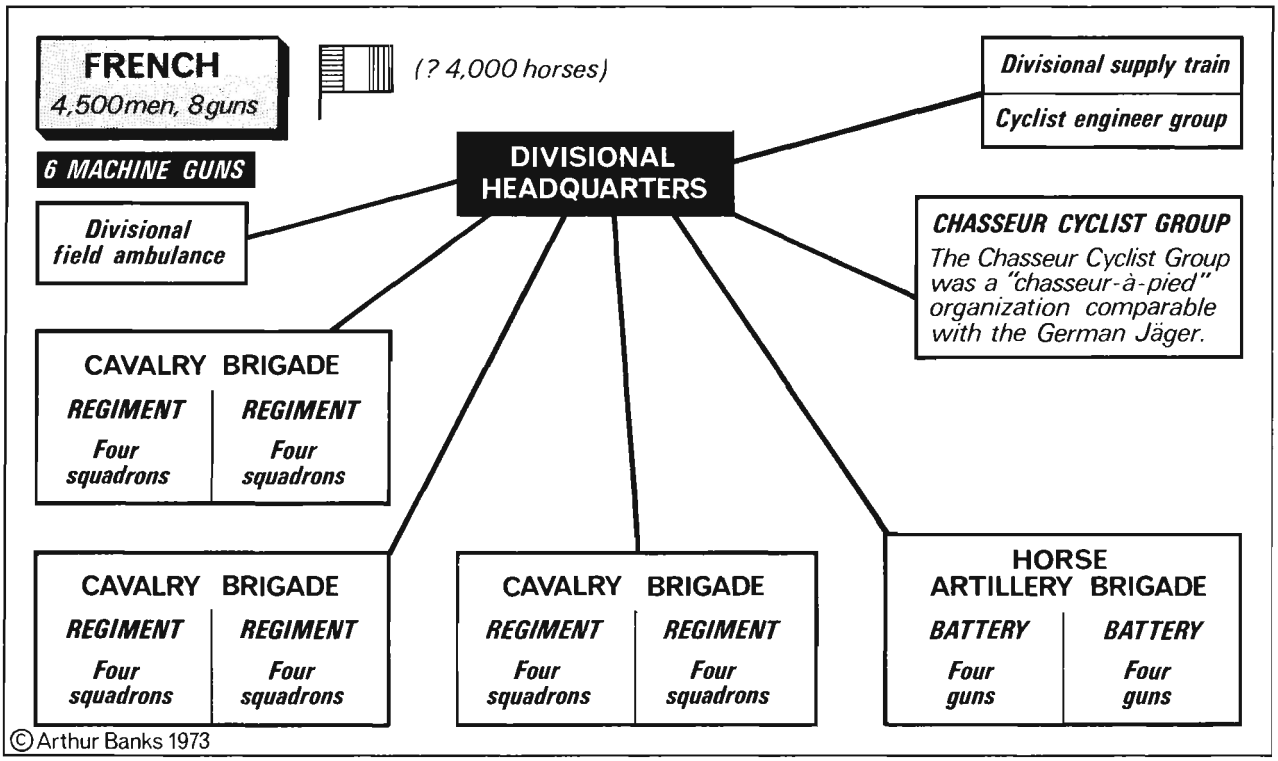

RUSSIAN
Approx. 20,000 men, 48 guns
32 MACHINE GUNS
DIVISIONAL HEADQUARTERS
Divisional supply train
INFANTRY BRIGADE
REGIMENT
Four battalions
REGIMENT
Four battalions
ARTILLERY BRIGADE
Six 8-gun batteries
INFANTRY BRIGADE
REGIMENT
Four battalions
REGIMENT
Four battalions
Two divisions formed a corps, which also included
ENGINEER BATTALION
Three sapper companies
LIGHT HOWITZERS
Two 6-gun batteries
Corps supply train
Two telegraph companies
Field hospitals


AUSTRO-HUNGARIAN
Approx. 15,000 men, 42 guns
28 MACHINE GUNS
DIVISIONAL HEADQUARTERS
Divisional supply train
Field hospitals
INFANTRY BRIGADE
REGIMENT
Three or four battalions
REGIMENT
Three or four battalions
INFANTRY BRIGADE
REGIMENT
Three or four battalions
REGIMENT
Three or four battalions
Two cavalry squadrons
ARTILLERY BRIGADE
Five 6-gun batteries
Two 6-gun howitzer batteries
There was no standard corps organization in the Austro-Hungarian army: some corps had two divisions, others had more.
A corps would include
Cavalry squadron
Two 4-gun heavy howitzer batteries
Two sapper companies
Corps supply train
Pioneer company

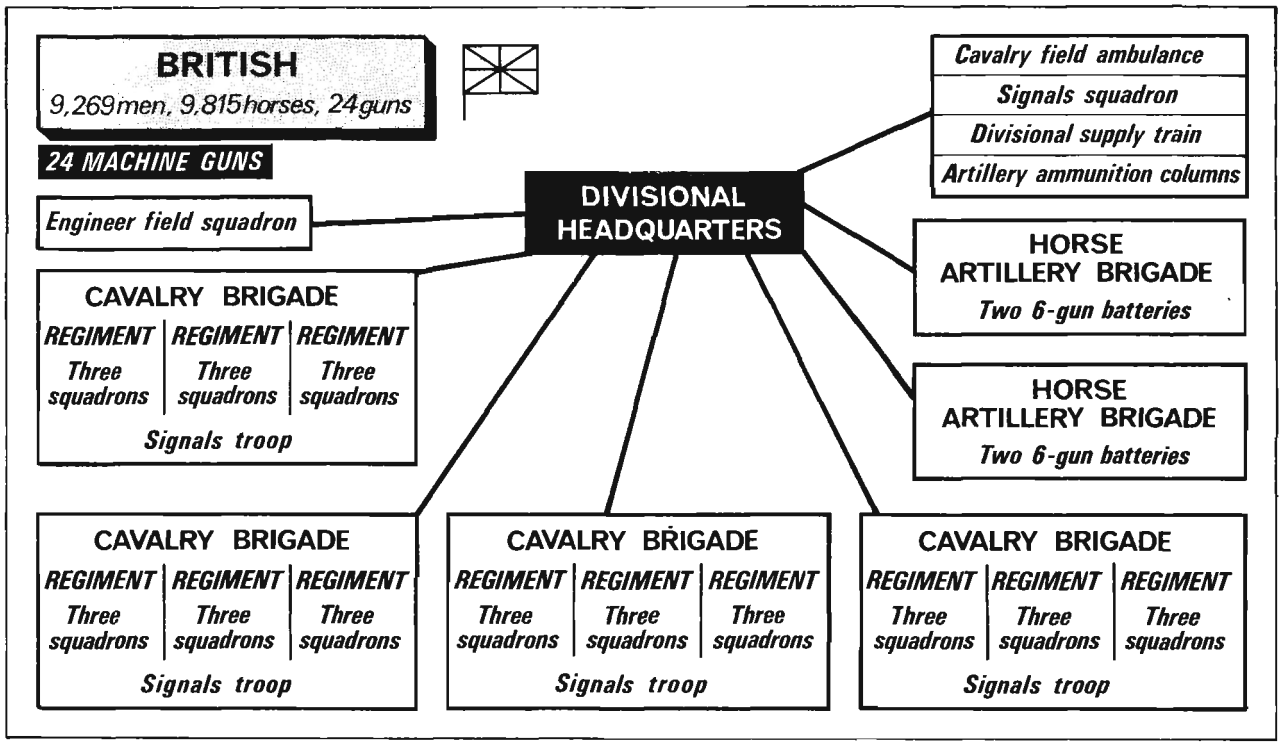
# RIVAL CAVALRY DIVISIONAL ORGANIZATIONS IN 1914

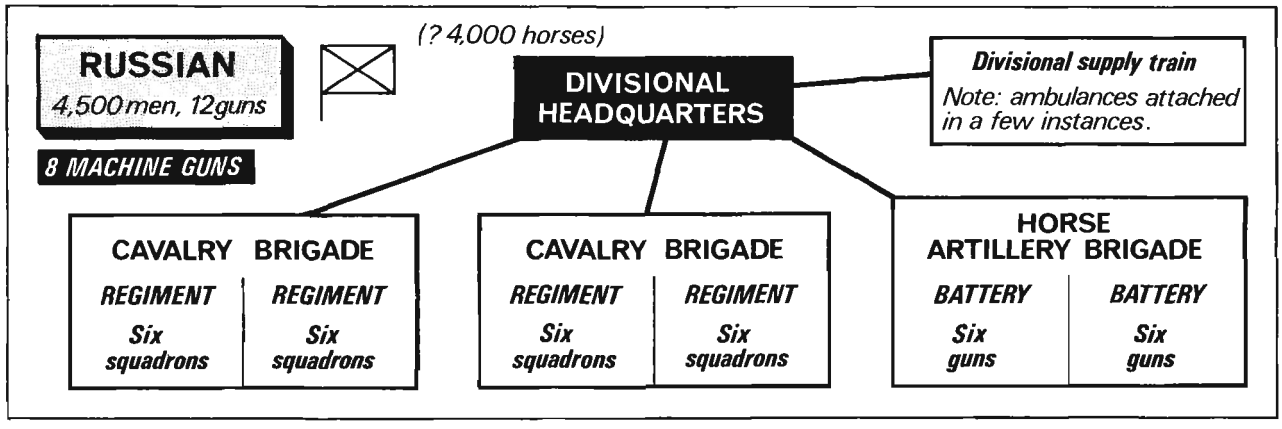


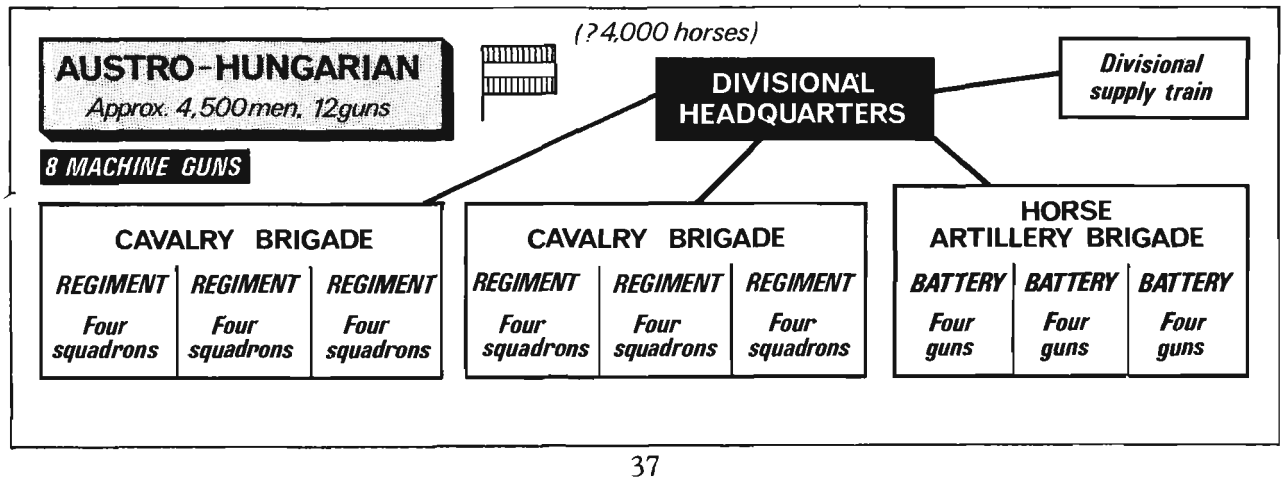

*Each cavalry regiment had its own telegraph detachment.*




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BRITISH
9,269 men, 9,815 horses, 24 guns
24 MACHINE GUNS
DIVISIONAL HEADQUARTERS
Cavalry field ambulance
Signals squadron
Divisional supply train
Artillery ammunition columns
Engineer field squadron
HORSE ARTILLERY BRIGADE
Two 6-gun batteries
HORSE ARTILLERY BRIGADE
Two 6-gun batteries
CAVALRY BRIGADE
REGIMENT Three squadrons
REGIMENT Three squadrons
REGIMENT Three squadrons
Signals troop
CAVALRY BRIGADE
REGIMENT Three squadrons
REGIMENT Three squadrons
REGIMENT Three squadrons
Signals troop
CAVALRY BRIGADE
REGIMENT Three squadrons
REGIMENT Three squadrons
REGIMENT Three squadrons
Signals troop
CAVALRY BRIGADE
REGIMENT Three squadrons
REGIMENT Three squadrons
REGIMENT Three squadrons
Signals troop


RUSSIAN
4,500 men, 12 guns
8 MACHINE GUNS
(? 4,000 horses)
DIVISIONAL HEADQUARTERS
Divisional supply train
Note: ambulances attached in a few instances.
CAVALRY BRIGADE
REGIMENT Six squadrons
REGIMENT Six squadrons
CAVALRY BRIGADE
REGIMENT Six squadrons
REGIMENT Six squadrons
HORSE ARTILLERY BRIGADE
BATTERY Six guns
BATTERY Six guns


AUSTRO-HUNGARIAN
Approx. 4,500 men, 12 guns
8 MACHINE GUNS
(? 4,000 horses)
DIVISIONAL HEADQUARTERS
Divisional supply train
CAVALRY BRIGADE
REGIMENT Four squadrons
REGIMENT Four squadrons
REGIMENT Four squadrons
CAVALRY BRIGADE
REGIMENT Four squadrons
REGIMENT Four squadrons
REGIMENT Four squadrons
HORSE ARTILLERY BRIGADE
BATTERY Four guns
BATTERY Four guns
BATTERY Four guns

# THE GERMAN INVASION OF BELGIUM AUGUST 1914

## Situation 17-24 August

0 5 10 Miles

**KEY TO GERMAN DISPOSITIONS**
- First positions, 17 August.
- Front lines, 20 August.
- Second positions, 21 August.
- Third positions, 22 August.
- Fourth positions, 23 August.
- March of Cavalry Corps and II Corps, 24 August.

Note: Corps are shown by Roman numerals

Note: Antwerp was besieged at a later period in 1914, from 29 September to 9 October.

***The German attack was accompanied by atrocities against the civilian population of Belgium, hostages being executed, towns pillaged, and homes destroyed.***

***20 August, Belgian Army retires behind the Antwerp defences.***

***20 August, surrender of Brussels.***

***21-25 August, Namur under siege.***

***4-17 August, Liége under siege.***

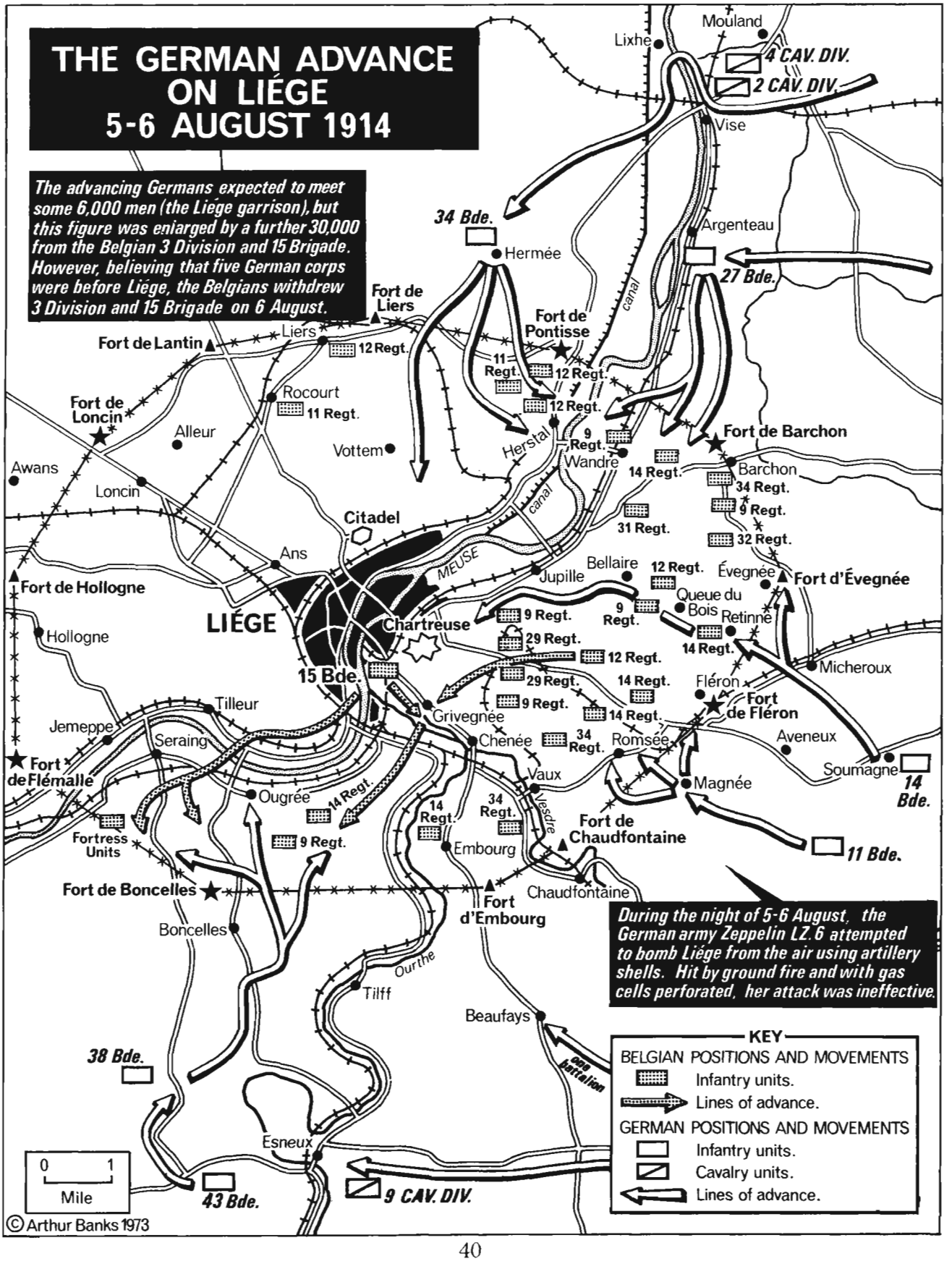
***Royal Flying Corps HQ was at Maubeuge aerodrome. It consisted of 63 aeroplanes and 860 personnel.***

**KEY TO ALLIED DISPOSITIONS**
- French Fifth Army, 21 August position.
- French Fifth Army, 22 August positions.
- French Fifth Army, 24 August positions.
- British Expeditionary Force, 22/23 August.

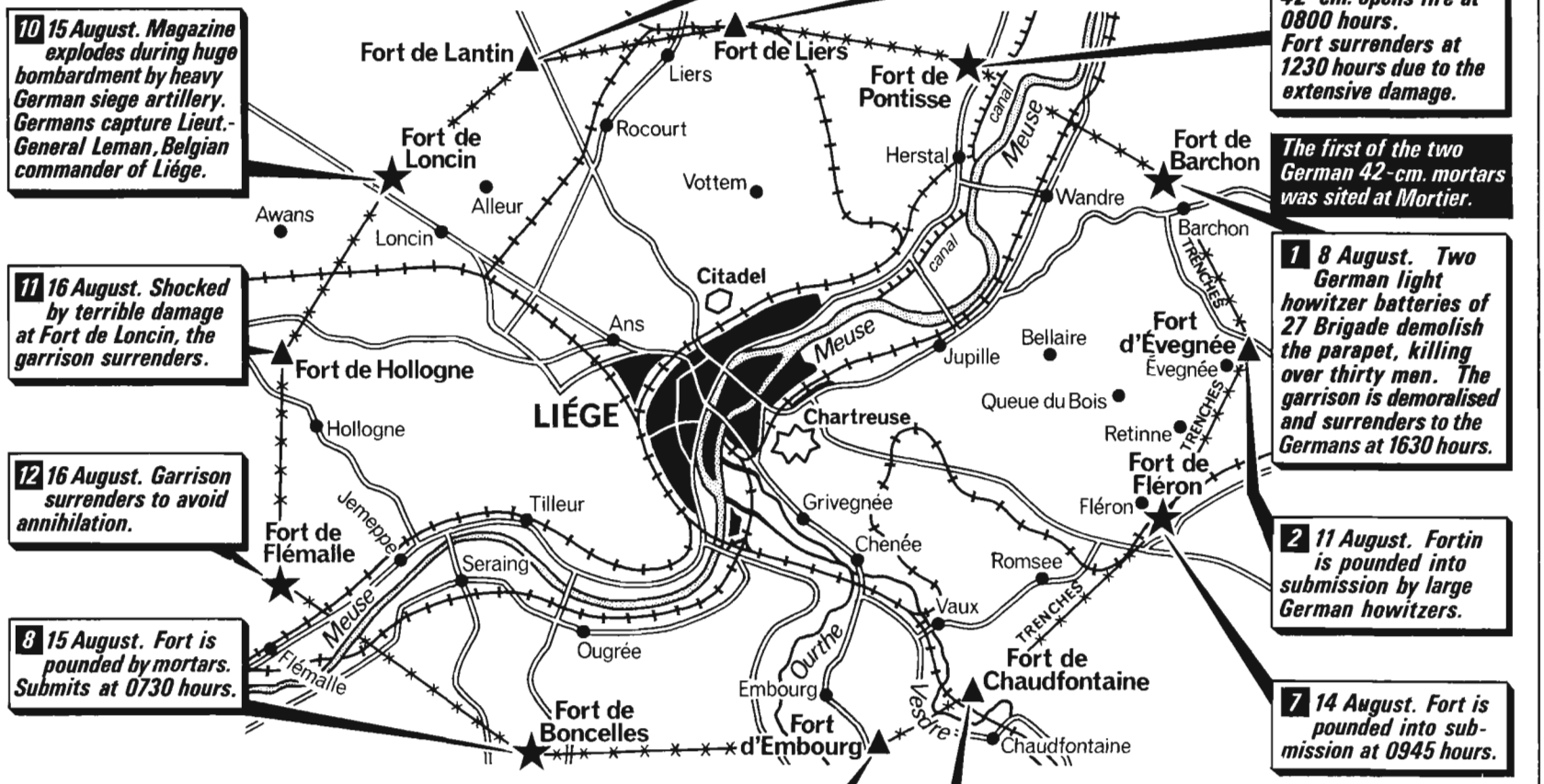
Note: Corps are shown by Roman numerals

HOLLAND · NORTH SEA · OSTEND · BRUGES · Nieuport · DUNKIRK · Dixmude · Yser · Bergues · Cassel · 81 Territorial Division · Roulers · Ypres · Warneton · Hazebrouck · Armentières · Lys · LILLE · 82 Territorial Division · Cysoing · Béthune · Lens · GROUP D'AMADE (Reserve) · Douai · ARRAS · HQ, GROUP D'AMADE · Scarpe · Schelde · Lys · GHENT · Courtrai · Oudenarde · Valenciennes · Le Quesnoy · Solesmes · Cambrai · Le Cateau · GHQ, B.E.F. · Sambre · Helpe · Avesnes · Landrecies · Dendre · Grammont · Renaix · Enghien · Ath · TOURNAI · Leuze · Antoing · Peruwelz · Condé · 84 Terr. D. · 88 Terr. Div. · 23 August · Marchiennes · St. Amand · 19 Inf. Bde. · Cav. Div. · 5 Cav. Bde. · MONS · Binche · Canal · Bavai · MAUBEUGE · 53 & 69 R.Ds. · 53 R.D. · 24 Aug. · II Cav. Corps · II Cav. Corps (von der Marwitz) · I Cav. Corps · B. E. F. · FIRST ARMY · SECOND ARMY · FRENCH FIFTH ARMY · THIRD ARMY · 24 August, to Aubenton · Chimay · HQ, FIFTH ARMY · 69 Reserve Div. · 51 Reserve Div. · Givet (Fort de Charlemont) · FRANCE · Waterloo · Wavre · Nivelles · Gembloux · Sordet · 20 Aug. · Guard · X Reserve · Charleroi · Thuin · Beaumont · Walcourt · Philippeville · Florennes · Laneffe · Dinant · 15 Aug. · 16-19 August · XII · XIX · 14 Aug. · Ciney · I Cav. Corps · 13 August · Marche · Meuse · Sambre · Namur · Eghezée · Guard Reserve Corps · Andenne · Huy · 38 Division · XI · 22 Division · XII Reserve · Tirlemont · Gette · Louvain · Dyle · Senne · BRUSSELS · Vilvorde · MALINES · Nethe · Schelde · ANTWERP · III Reserve · Aerschot · Diest · Demer · Haelen · Herck · Hasselt · FIRST ARMY (von Kluck) · 17 August · St. Trond · IV Reserve · Tongres · Geer · Lixhe · Visé · Meuse · Mehaigne · Ourthe · Vesdre · Verviers · Eupen · LIÉGE · SECOND ARMY (von Bülow) · Amblève · Stavelot · Malmédy · Limburg · GERMANY · HOLLAND · MAASTRICHT · AACHEN · THIRD ARMY (von Hausen) · LUXEMBOURG · BELGIUM

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THE GERMAN ADVANCE ON LIÉGE 5-6 AUGUST 1914
The advancing Germans expected to meet some 6,000 men (the Liége garrison), but this figure was enlarged by a further 30,000 from the Belgian 3 Division and 15 Brigade. However, believing that five German corps were before Liége, the Belgians withdrew 3 Division and 15 Brigade on 6 August.
Mouland
Lixhe
4 CAV. DIV.
2 CAV. DIV.
Vise
34 Bde.
Hermée
Argenteau
27 Bde.
canal
Fort de Liers
Fort de Pontisse
Liers
Fort de Lantin
12 Regt.
11 Regt.
12 Regt.
12 Regt.
Rocourt
11 Regt.
Fort de Loncin
Alleur
Vottem
Herstal
9 Regt.
Wandre
14 Regt.
Fort de Barchon
Barchon
34 Regt.
9 Regt.
32 Regt.
Awans
Loncin
canal
31 Regt.
Citadel
Ans
MEUSE
Jupille
Bellaire
12 Regt.
Évegnée
Fort d'Évegnée
Fort de Hollogne
Queue du Bois
Retinne
LIÉGE
Chartreuse
9 Regt.
9 Regt.
29 Regt.
14 Regt.
Hollogne
12 Regt.
Micheroux
15 Bde.
29 Regt.
14 Regt.
Fléron
Fort de Fléron
Tilleur
9 Regt.
14 Regt.
Grivegnée
Jemeppe
Seraing
Chenée
34 Regt.
Romsée
Aveneux
Fort de Flémalle
Vaux
Soumagne
14 Bde.
Ougrée
14 Regt.
Magnée
14 Regt.
34 Regt.
Vesdre
Fortress Units
9 Regt.
Embourg
Fort de Chaudfontaine
11 Bde.
Fort de Boncelles
Fort d'Embourg
Chaudfontaine
Boncelles
During the night of 5-6 August, the German army Zeppelin LZ.6 attempted to bomb Liége from the air using artillery shells. Hit by ground fire and with gas cells perforated, her attack was ineffective.
Ourthe
Tilff
Beaufays
one battalion
38 Bde.
KEY
BELGIAN POSITIONS AND MOVEMENTS
Infantry units.
Lines of advance.
GERMAN POSITIONS AND MOVEMENTS
Infantry units.
Cavalry units.
Lines of advance.
Esneux
0
1
Mile
43 Bde.
9 CAV. DIV.
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# REDUCTION OF THE LIÉGE FORTS 8-16 AUGUST 1914




**9** 15 August. Fortin pounded into submission at 1230.

**6** 14 August. Fortin is pounded into submission at 0940 hours.

**3** 12 August marks the appearance of the first of the two Krupp 42-cm. mortars. 13 August, the second 42-cm. opens fire at 0800 hours. Fort surrenders at 1230 hours due to the extensive damage.

**10** 15 August. Magazine explodes during huge bombardment by heavy German siege artillery. Germans capture Lieut.-General Leman, Belgian commander of Liége.

The first of the two German 42-cm. mortars was sited at Mortier.

**1** 8 August. Two German light howitzer batteries of 27 Brigade demolish the parapet, killing over thirty men. The garrison is demoralised and surrenders to the Germans at 1630 hours.

**11** 16 August. Shocked by terrible damage at Fort de Loncin, the garrison surrenders.

**12** 16 August. Garrison surrenders to avoid annihilation.

**2** 11 August. Fortin is pounded into submission by large German howitzers.

**8** 15 August. Fort is pounded by mortars. Submits at 0730 hours.

**7** 14 August. Fort is pounded into submission at 0945 hours.

**5** 13 August. Krupp 42-cm. mortars and Skoda 30·5-cm. howitzers pound the fortin, which surrenders at 1730 hours to avoid further bloodshed.

**4** 13 August. The magazine explodes and fire destroys the casements after hits by German shells. Fortin surrenders at 0900.

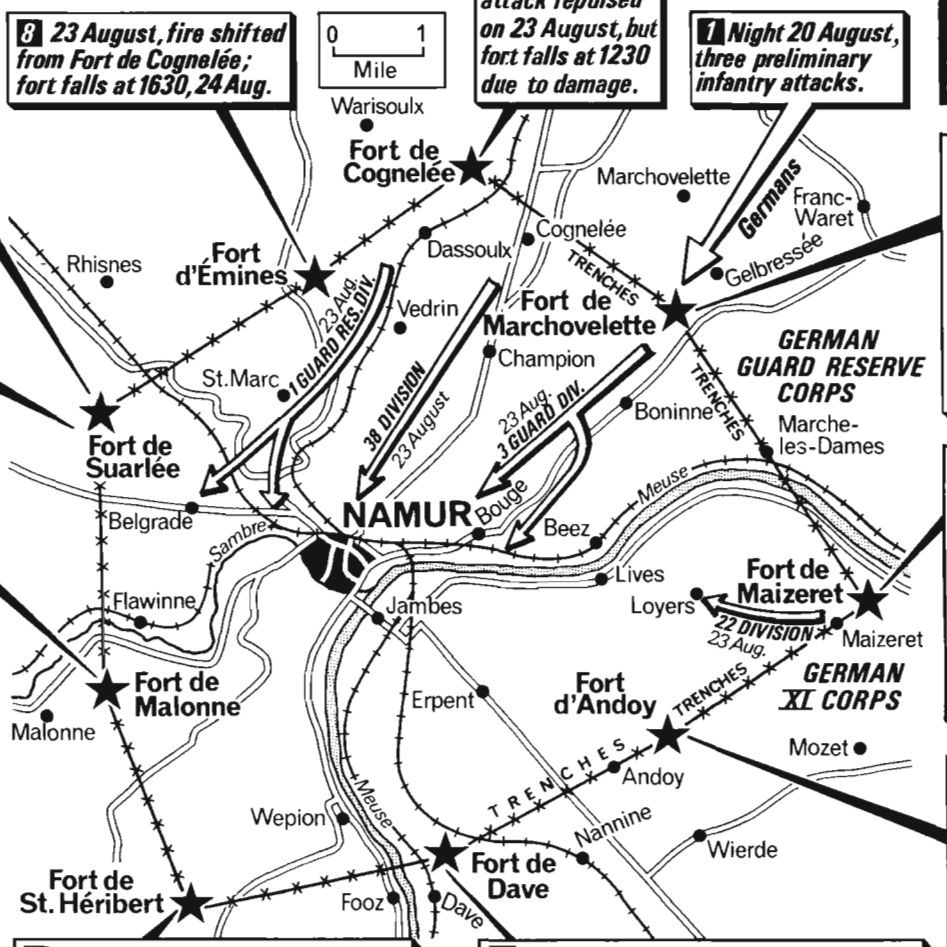
The rapid reduction of the Belgian fortress at Liége was due primarily to the overwhelming fire-power of the German siege artillery, which went on to equal success at Antwerp (reputed to be the strongest fortress in Europe in 1914). Liége itself was occupied before the forts were bombarded, and one of the two German 42-cm. mortars employed was sited in one of the town's squares.

Note: all times shown in the panels are Belgian; German time was one hour later.

0 1 Mile

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# THE BOMBARDMENT OF NAMUR 21-25 AUGUST 1914




**11** *23 August, "mörser" shell attack commences, and heavy damage soon results. 3,600 shells are rained on the fort's position, the majority from 42-cm. weapons. Fort falls at 1700 hours on 25 August.*

**8** *23 August, fire shifted from Fort de Cognelée; fort falls at 1630, 24 Aug.*

**6** *Shelling opens at 1000 hours on 21 August. Early-morning infantry attack repulsed on 23 August, but fort falls at 1230 due to damage.*

**2** *Morning 21 Aug., German field guns fire on trenches in intervals of forts.*

**1** *Night 20 August, three preliminary infantry attacks.*

*Namur was defended by the fortress garrison and 4 Belgian (Mobile) Division, plus two companies of the French 45 Infantry Brigade. The German investing forces included the Guard Reserve Corps and XI Corps, plus the heavy siege artillery moved up from Liége.*

**3** *1000 hours 21 August, the German "mörser" bombardment commences, rapidly inflicting severe damage to cupolas and magazines. By dusk, telephonic apparatus is unserviceable. Throughout 22 August anti-concrete shells continue falling on sole operational cupola. Fort finally succumbs on 23 August.*

*Namur itself was shelled for four hours on 21 August, and again on 22 August.*

**4** *1000 hours 21 August, the German siege artillery opens fire. By dusk, cupolas remain in working order, but telephonic apparatus is unserviceable. Shelling continues throughout night and on following day. By dusk on 22 August fort is in ruins, and garrison decides to evacuate the position.*

**10** *24 August, howitzer attack commences. Fort succumbs at 1430 hours on the following day.*

*The bombardment of Namur followed the pattern established by the German heavy siege artillery at Liége. As before, the forts facing east were attacked first by the German 42-cm. "mörsers" and Austrian-produced 30·5-cm. howitzers; likewise, they were destroyed systematically. Belgian 4 Division was extricated from the holocaust at night on 23 August, and although the rearguard was trapped at Ermeton-sur-Biert, 12,000 men eventually reached Antwerp via Mariembourg on 30 August.*

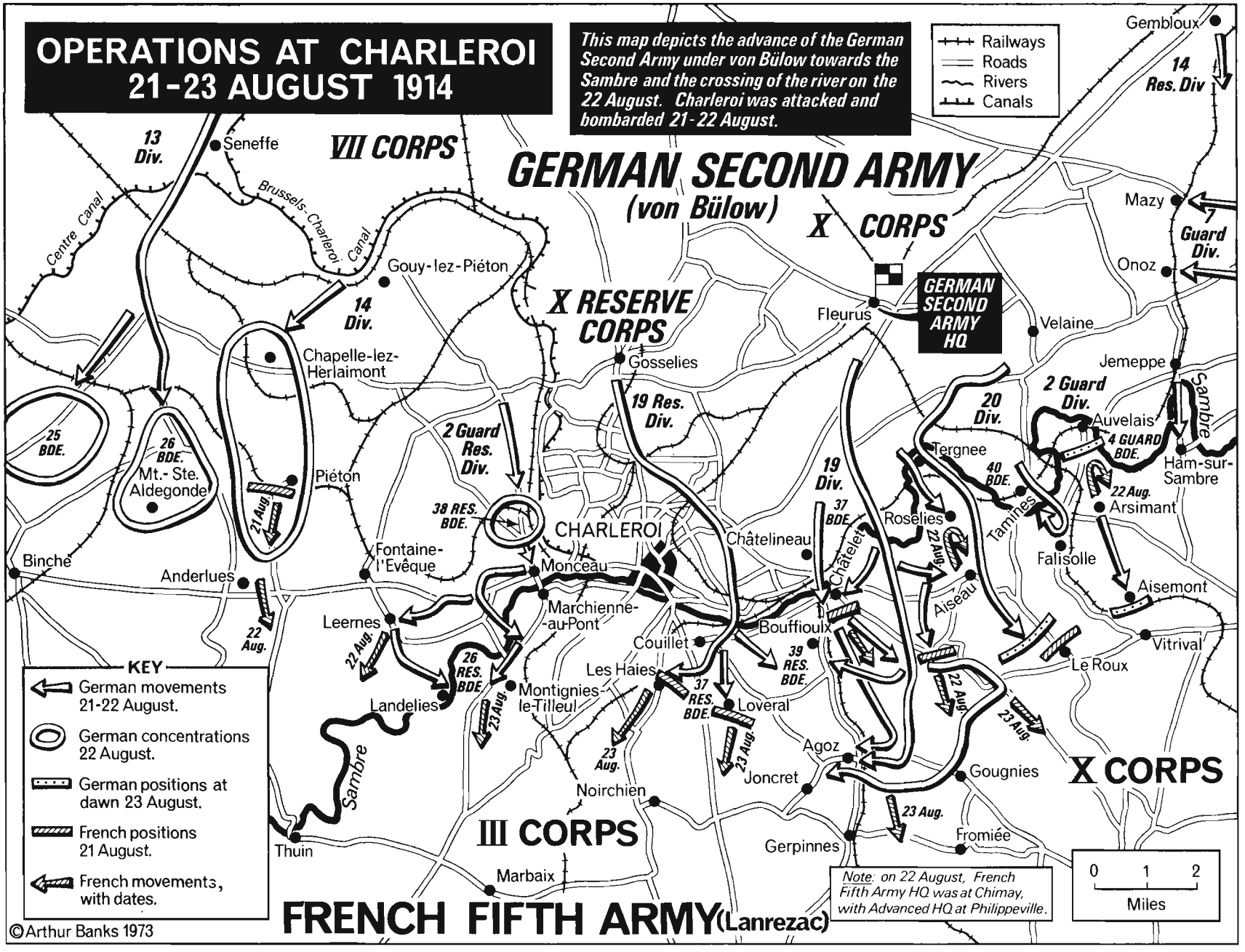
**5** *1000 hours 21 August, the German heavy artillery opens fire. By dusk the structure of fort is honeycombed by large cracks in the concrete structure. By dusk all telephonic apparatus is unserviceable. Fort succumbs on 23 August.*

**9** *24 August, German 15-cm. field howitzers open bombardment. Fort is shelled continuously for 90 minutes, and then succumbs after main part of garrison is evacuated.*

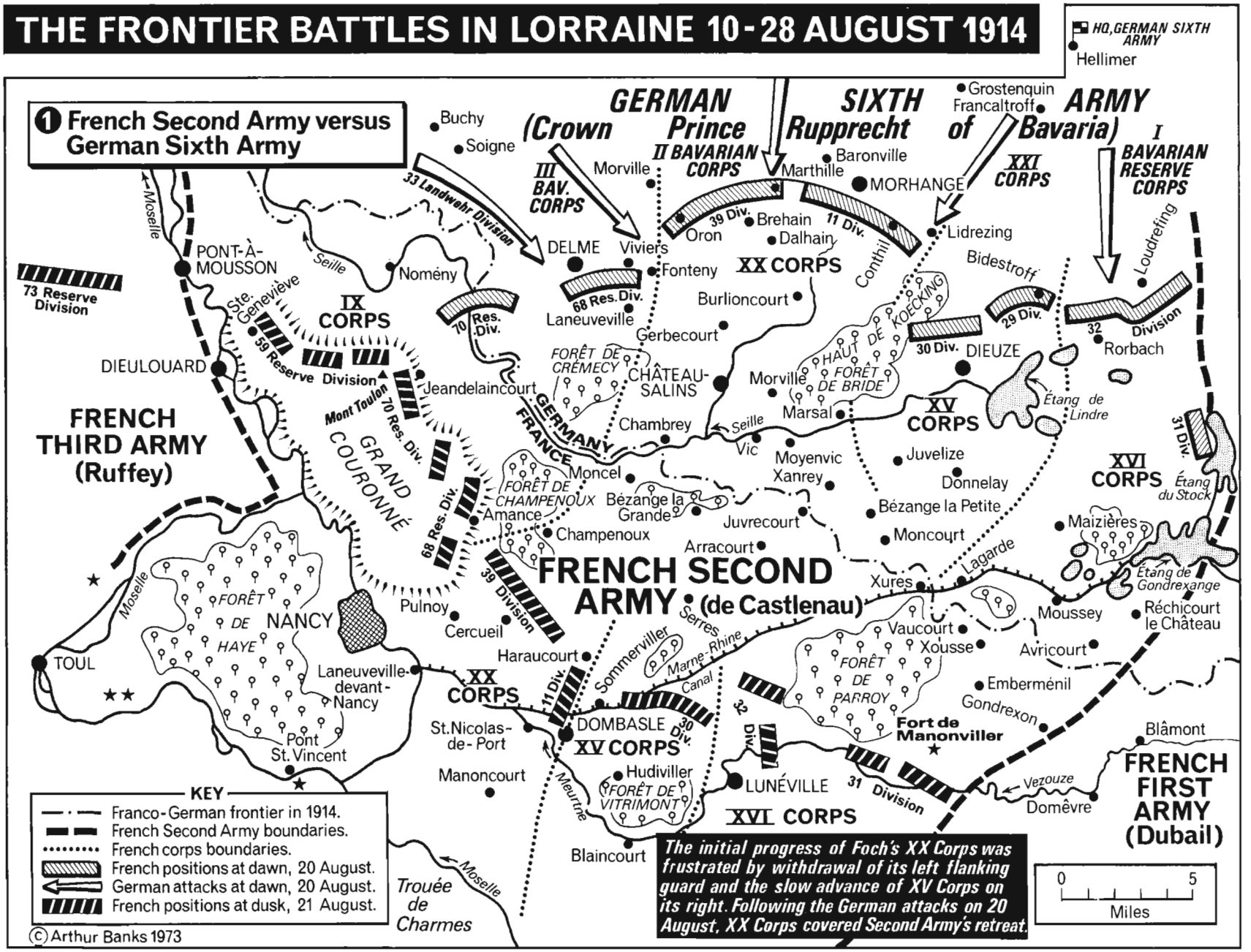
**7** *Morning 22 August, German artillery opens fire, but by dusk is only slightly damaged. On 23 August, German heavy howitzers switch fire from Forts d'Andoy and Maizeret. Destruction follows swiftly.*

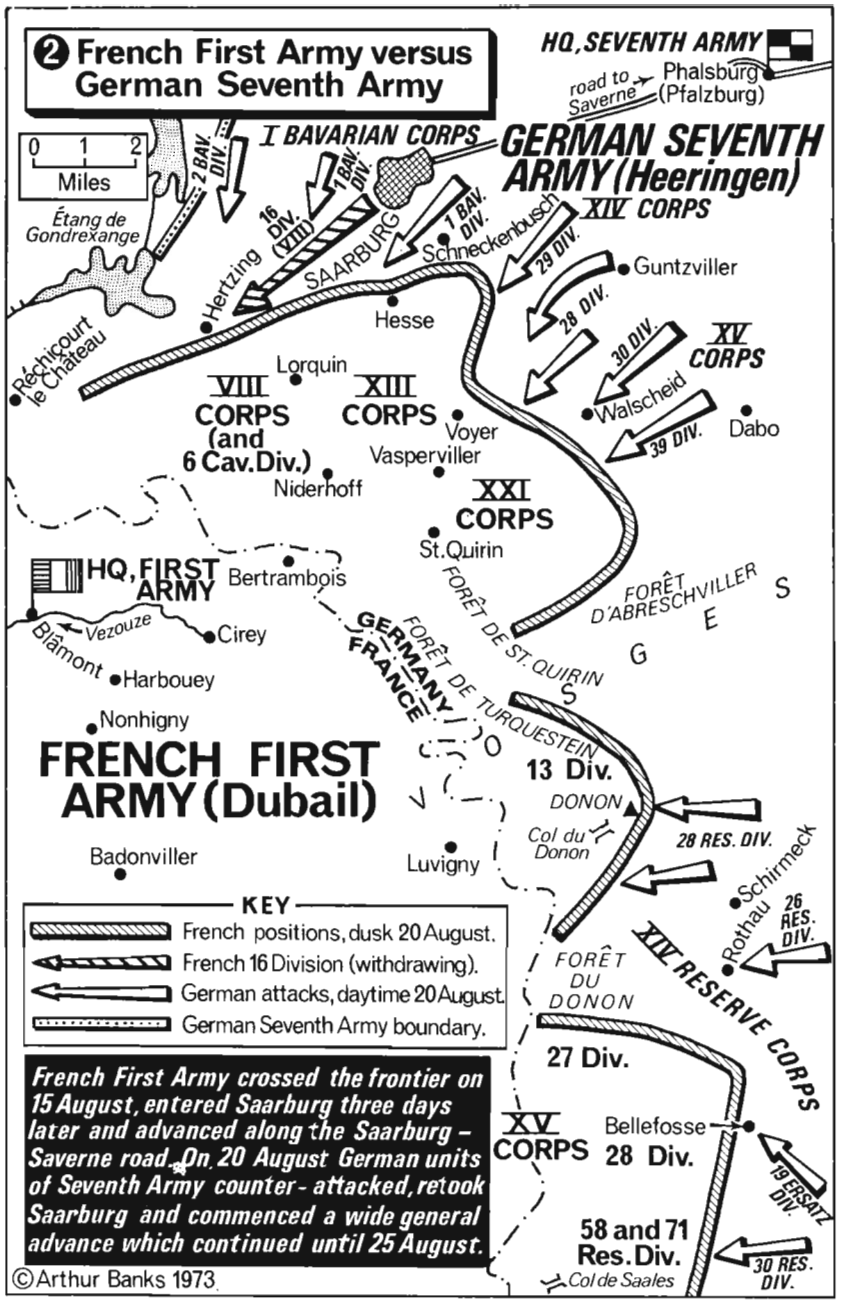
*Note: all times shown in the panels are Belgian; German time was one hour later.*

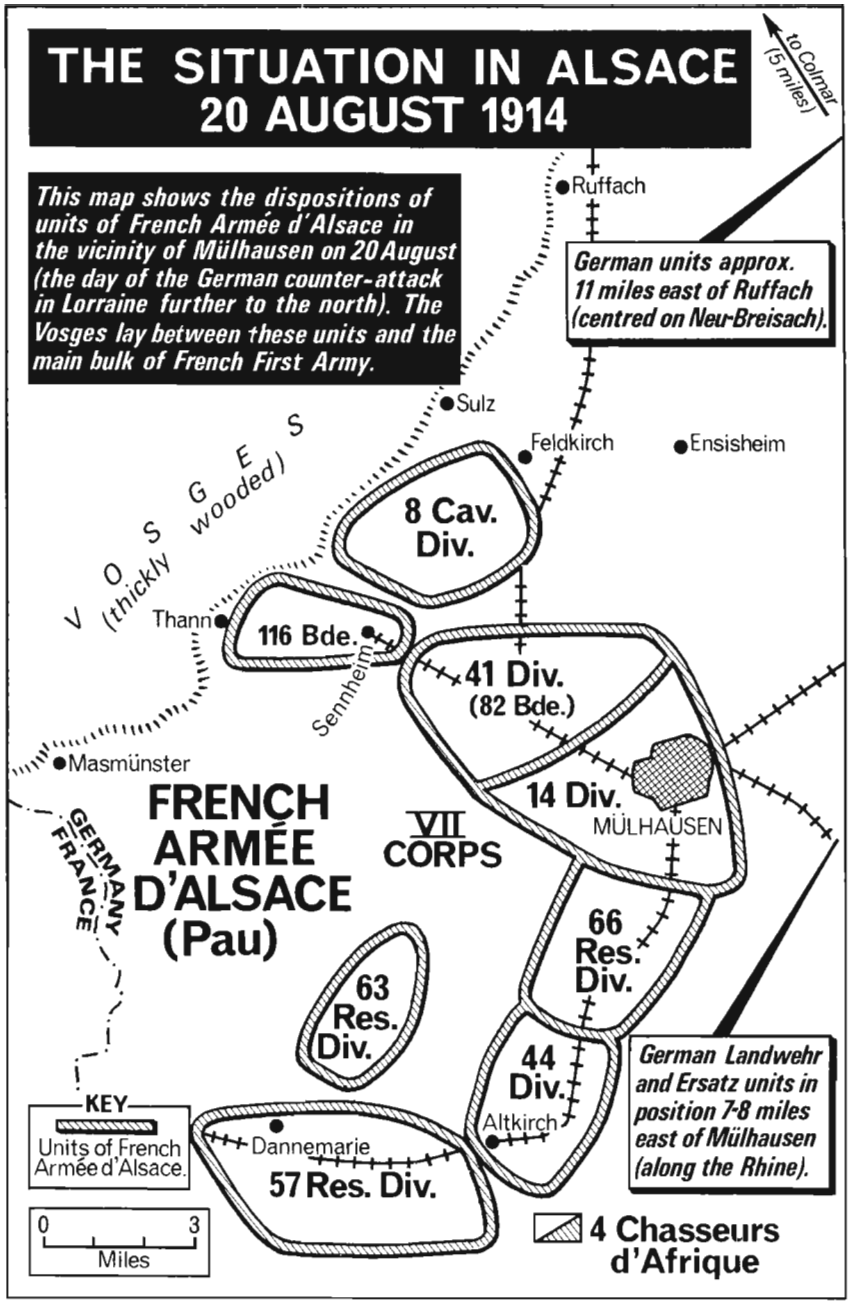
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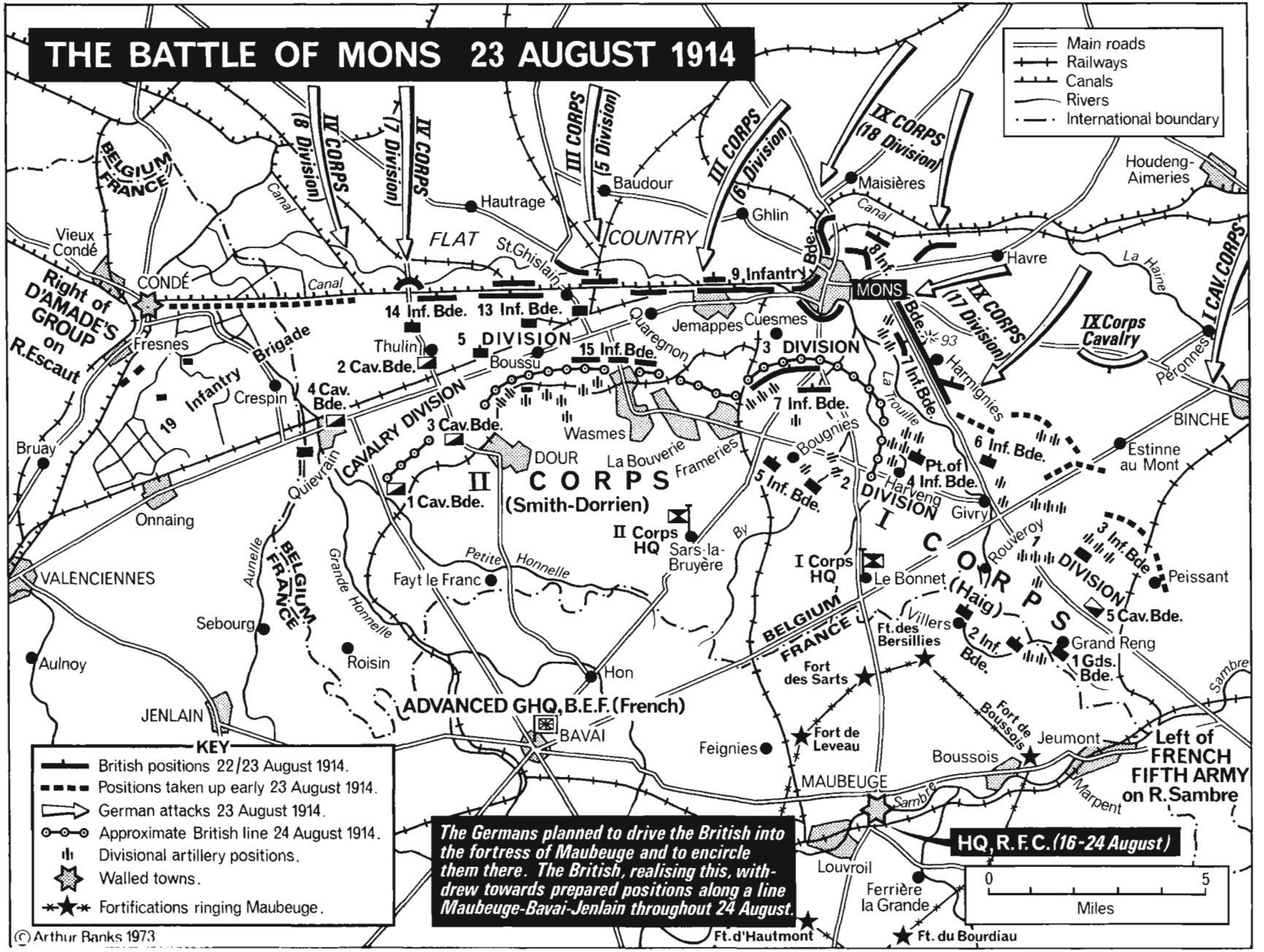

OPERATIONS AT CHARLEROI
21-23 AUGUST 1914
This map depicts the advance of the German Second Army under von Bülow towards the Sambre and the crossing of the river on the 22 August. Charleroi was attacked and bombarded 21-22 August.
Railways
Roads
Rivers
Canals
GERMAN SECOND ARMY
(von Bülow)
VII CORPS
X CORPS
X RESERVE CORPS
III CORPS
FRENCH FIFTH ARMY (Lanrezac)
GERMAN SECOND ARMY HQ
13 Div.
14 Div.
19 Res. Div.
2 Guard Res. Div.
14 Res. Div
Guard Div.
2 Guard Div.
20 Div.
19 Div.
25 BDE.
26 BDE.
38 RES. BDE.
4 GUARD BDE.
40 BDE.
37 BDE.
26 RES. BDE.
37 RES. BDE.
39 RES. BDE.
Seneffe
Gembloux
Mazy
Onoz
Velaine
Jemeppe
Auvelais
Ham-sur-Sambre
Arsimant
Falisolle
Aisemont
Vitrival
Le Roux
Tergnee
Roselies
Tamines
Aiseau
Châtelineau
Châtelet
Bouffioulx
Couillet
Les Haies
Loveral
Agoz
Joncret
Gougnies
Fromiée
Gerpinnes
Noirchien
Marbaix
Thuin
Landelies
Montignies-le-Tilleul
Leernes
Marchienne-au-Pont
Monceau
Fontaine-l'Evêque
CHARLEROI
Piéton
Chapelle-lez-Herlaimont
Gouy-lez-Piéton
Brussels-Charleroi Canal
Centre Canal
Mt.-Ste. Aldegonde
Binche
Anderlues
Fleurus
Gosselies
Sambre
22 Aug.
23 Aug.
21 Aug.
KEY
German movements 21-22 August.
German concentrations 22 August.
German positions at dawn 23 August.
French positions 21 August.
French movements, with dates.
Note: on 22 August, French Fifth Army HQ was at Chimay, with Advanced HQ at Philippeville.
0 1 2
Miles
©Arthur Banks 1973

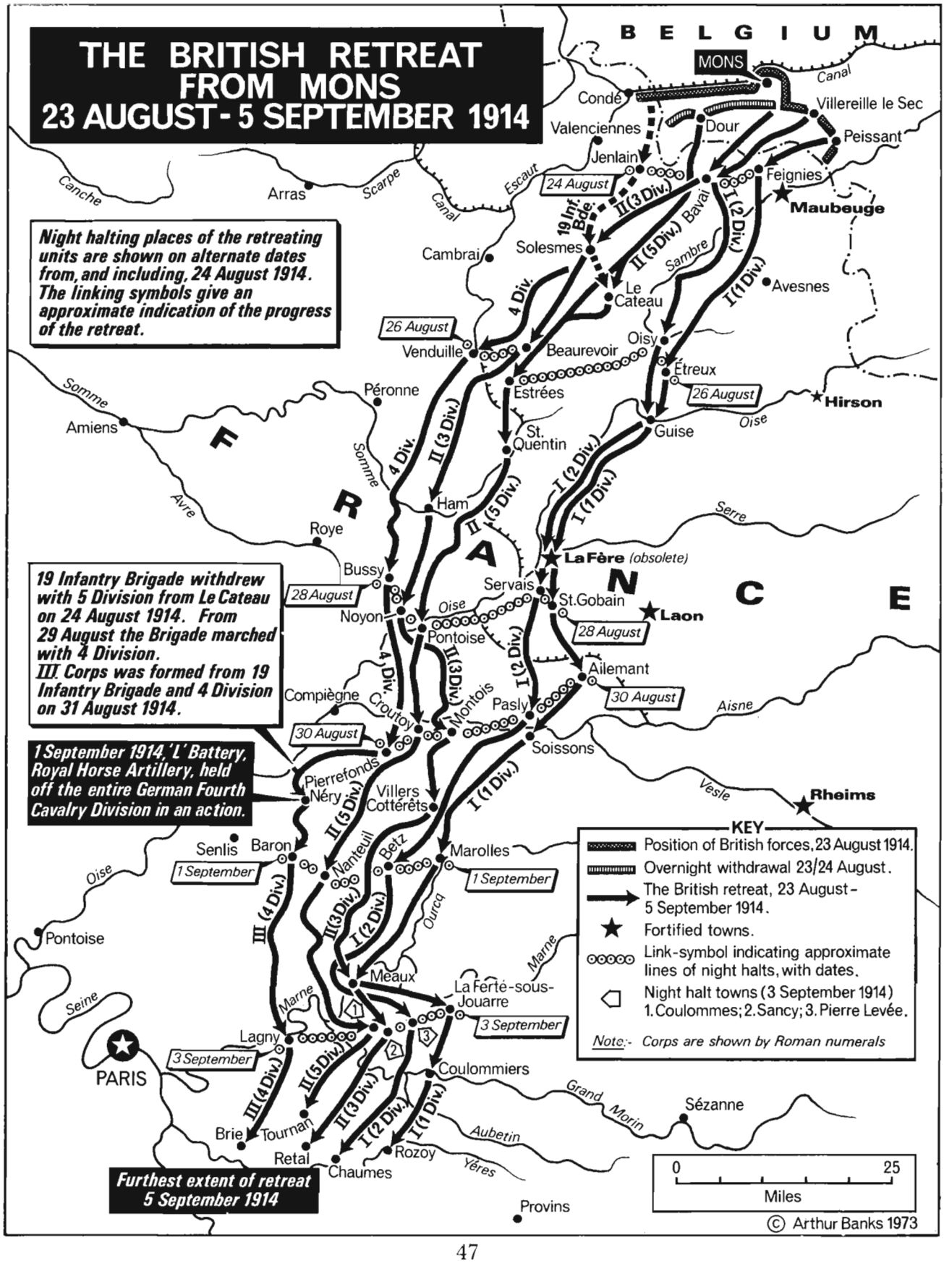
# THE FRONTIER BATTLES IN LORRAINE 10-28 AUGUST 1914




2 French First Army versus German Seventh Army
HQ, SEVENTH ARMY
road to Saverne
Phalsburg (Pfalzburg)
0 1 2 Miles
I BAVARIAN CORPS
GERMAN SEVENTH ARMY (Heeringen)
XIV CORPS
2 BAV. DIV.
1 BAV. DIV.
16 DIV. (VIII)
1 BAV. DIV.
29 DIV.
28 DIV.
30 DIV.
39 DIV.
XV CORPS
Étang de Gondrexange
Hertzing
SAARBURG
Schneckenbusch
Guntzviller
Hesse
Réchicourt le Château
Lorquin
VIII CORPS (and 6 Cav.Div.)
XIII CORPS
Voyer
Walscheid
Dabo
Vasperviller
Niderhoff
XXI CORPS
St.Quirin
HQ, FIRST ARMY
Bertrambois
FORÊT D'ABRESCHVILLER
FORÊT DE ST. QUIRIN
Vezouze
Cirey
Blâmont
Harbouey
GERMANY
FRANCE
FORÊT DE TURQUESTEIN
Nonhigny
FRENCH FIRST ARMY (Dubail)
13 Div.
DONON
Col du Donon
28 RES. DIV.
Badonville
Luvigny
Schirmeck
Rothau
26 RES. DIV.
XIV RESERVE CORPS
FORÊT DU DONON
27 Div.
XV CORPS
Bellefosse
28 Div.
19 ERSATZ DIV.
58 and 71 Res.Div.
Col de Saales
30 RES. DIV.
KEY
French positions, dusk 20 August.
French 16 Division (withdrawing).
German attacks, daytime 20 August.
German Seventh Army boundary.
French First Army crossed the frontier on 15 August, entered Saarburg three days later and advanced along the Saarburg – Saverne road. On 20 August German units of Seventh Army counter-attacked, retook Saarburg and commenced a wide general advance which continued until 25 August.
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THE SITUATION IN ALSACE 20 AUGUST 1914
to Colmar (15 miles)
This map shows the dispositions of units of French Armée d'Alsace in the vicinity of Mülhausen on 20 August (the day of the German counter-attack in Lorraine further to the north). The Vosges lay between these units and the main bulk of French First Army.
Ruffach
German units approx. 11 miles east of Ruffach (centred on Neu-Breisach).
Sulz
Feldkirch
Ensisheim
VOSGES (thickly wooded)
8 Cav. Div.
Thann
116 Bde.
Sennheim
41 Div. (82 Bde.)
Masmünster
14 Div.
MÜLHAUSEN
FRENCH ARMÉE D'ALSACE (Pau)
VII CORPS
GERMANY
FRANCE
66 Res. Div.
63 Res. Div.
44 Div.
Altkirch
German Landwehr and Ersatz units in position 7-8 miles east of Mülhausen (along the Rhine).
KEY
Units of French Armée d'Alsace.
Dannemarie
57 Res. Div.
0 3 Miles
4 Chasseurs d'Afrique


THE BATTLE OF MONS 23 AUGUST 1914
Main roads
Railways
Canals
Rivers
International boundary
BELGIUM
FRANCE
Vieux Condé
CONDÉ
Canal
Right of D'AMADE'S GROUP on R.Escaut
Fresnes
19 Infantry Brigade
Crespin
Bruay
Onnaing
VALENCIENNES
Aulnoy
Sebourg
Roisin
JENLAIN
Aunelle
Quievrain
Grande Honnelle
Petite Honnelle
Fayt le Franc
IV CORPS (8 Division)
IV CORPS (7 Division)
III CORPS (5 Division)
III CORPS (6 Division)
IX CORPS (18 Division)
Baudour
Hautrage
Ghlin
Maisières
Houdeng-Aimeries
FLAT COUNTRY
St.Ghislain
Havre
La Haine
MONS
9 Infantry Bde.
8 Inf. Bde.
IX CORPS (17 Division)
IX Corps Cavalry
I CAV. CORPS
Péronnes
14 Inf. Bde.
13 Inf. Bde.
Thulin
2 Cav.Bde.
5 DIVISION
Boussu
15 Inf.Bde.
Quaregnon
Jemappes
Cuesmes
3 DIVISION
7 Inf. Bde.
La Trouille
Harmignies
4 Cav. Bde.
CAVALRY DIVISION
3 Cav.Bde.
Wasmes
Bougnies
BINCHE
Estinne au Mont
6 Inf. Bde.
DOUR
La Bouverie
Frameries
II CORPS (Smith-Dorrien)
1 Cav.Bde.
5 Inf. Bde.
Pt.of 4 Inf. Bde.
I DIVISION
Harveng
Givry
I CORPS (Haig)
II Corps HQ
Sars-la-Bruyère
I Corps HQ
Le Bonnet
Rouveroy
1 DIVISION
3 Inf. Bde.
Peissant
5 Cav.Bde.
Villers
Ft.des Bersillies
2 Inf. Bde.
Grand Reng
1 Gds. Bde.
Fort des Sarts
Fort de Leveau
Fort de Boussois
Jeumont
Boussois
Feignies
MAUBEUGE
Sambre
Marpent
Left of FRENCH FIFTH ARMY on R.Sambre
ADVANCED GHQ, B.E.F. (French)
BAVAI
Hon
KEY
British positions 22/23 August 1914.
Positions taken up early 23 August 1914.
German attacks 23 August 1914.
Approximate British line 24 August 1914.
Divisional artillery positions.
Walled towns.
Fortifications ringing Maubeuge.
The Germans planned to drive the British into the fortress of Maubeuge and to encircle them there. The British, realising this, withdrew towards prepared positions along a line Maubeuge-Bavai-Jenlain throughout 24 August.
HQ, R.F.C. (16-24 August)
Louvroil
Ferrière la Grande
Ft.d'Hautmont
Ft. du Bourdiau
0
5
Miles
© Arthur Banks 1973


THE BRITISH RETREAT FROM MONS 23 AUGUST - 5 SEPTEMBER 1914
Night halting places of the retreating units are shown on alternate dates from, and including, 24 August 1914. The linking symbols give an approximate indication of the progress of the retreat.
19 Infantry Brigade withdrew with 5 Division from Le Cateau on 24 August 1914. From 29 August the Brigade marched with 4 Division.
III. Corps was formed from 19 Infantry Brigade and 4 Division on 31 August 1914.
1 September 1914, 'L' Battery, Royal Horse Artillery, held off the entire German Fourth Cavalry Division in an action.
Furthest extent of retreat 5 September 1914
BELGIUM
FRANCE
MONS
Canal
Condé
Valenciennes
Villereille le Sec
Dour
Peissant
Jenlain
Feignies
Maubeuge
Canche
Arras
Scarpe
Canal
Escaut
24 August
19 Inf. Bde.
II (3 Div.)
II (5 Div.)
Bavai
I (2 Div.)
Sambre
Cambrai
Solesmes
Le Cateau
Avesnes
I (1 Div.)
4 Div.
26 August
Venduille
Beaurevoir
Oisy
Étreux
Hirson
Sommes
Amiens
Péronne
Estrées
St. Quentin
Guise
Oise
II (3 Div.)
4 Div.
Somme
Ham
II (5 Div.)
I (2 Div.)
I (1 Div.)
Avre
Roye
Serre
La Fère (obsolete)
Bussy
28 August
Servais
St.Gobain
Laon
Noyon
Oise
Pontoise
28 August
II (3 Div.)
4 Div.
I (2 Div.)
Ailemant
30 August
Compiègne
Croutoy
Montois
Pasly
Aisne
30 August
Soissons
Pierrefonds
Néry
Villers Cottérêts
II (5 Div.)
I (1 Div.)
Vesle
Rheims
Senlis
Baron
1 September
Nanteuil
Betz
Marolles
1 September
Oise
III (4 Div.)
III (3 Div.)
I (2 Div.)
Ourcq
Pontoise
Marne
Meaux
La Ferté-sous-Jouarre
3 September
Seine
Marne
Lagny
3 September
PARIS
III (4 Div.)
II (5 Div.)
II (3 Div.)
I (2 Div.)
I (1 Div.)
Coulommiers
Grand Morin
Sézanne
Brie
Tournan
Retal
Chaumes
Rozoy
Aubetin
Yères
Provins
KEY
Position of British forces, 23 August 1914.
Overnight withdrawal 23/24 August.
The British retreat, 23 August - 5 September 1914.
Fortified towns.
Link-symbol indicating approximate lines of night halts, with dates.
Night halt towns (3 September 1914) 1. Coulommes; 2. Sancy; 3. Pierre Levée.
Note:- Corps are shown by Roman numerals
0
25
Miles
© Arthur Banks 1973

# THE ALLIED RETIREMENT 23 AUGUST–6 SEPTEMBER 1914

0 5 10 15 Miles

*This map shows the day by day withdrawal of the Allied Armies of the Left, following the German successes at Mons, Charleroi, Dinant, etc.. Dawn positions have been selected in order to illustrate the amount of territory relinquished each day. Corps I and II of the B.E.F., parted on 25 August, were reunited during the day of 1 September. Corps III was formed during the daytime of 31 August, and comprised 4 Division and 19 Infantry Brigade. Taking 23 August as the commencement of the retirement to the Marne battlefield, both German and Allied armies have been broken down into corps strengths on that day.*

*Note: the rapidity of the German advance caused their lines of communication to become over-extended and supplies began to fail.*

B E L G I U M

Ypres · Courtrai · Oudenarde · Renaix · BRUSSELS · Hal · Wavre

Main German Advance

GERMAN FIRST ARMY · GERMAN SECOND ARMY · GERMAN THIRD ARMY

Lille · Tournai · Ath · Béthune · Lens · Douai · Arras · Condé · Mons · Binche · Charleroi · Thuin · Namur · Dinant · Arrès · Mettet · Beaumont · Philippeville · Maubeuge · Valenciennes · Cambrai · Bapaume · Le Cateau · Avesnes · Chimay · Fumay · Givet · Meuse · Sambre · Helpe · Escaut (Schelde) · Canal · Scarpe · Schelde

*Maubeuge held out until 8 September.*

F R A N C E

Albert · Amiens · Somme · Péronne · Estrées · Bohain · Le Catelet · St. Quentin · Hirson · Rocroi · Vervins · Guise · Oise · Semois · Moreuil · Nesle · Roye · Montdidier · Crèvecœur · Breteuil · Noyon · La Fère (obsolete) · Laon · Montcornet · Rozoy · Marle · Serre · Crozat Canal · Les Ayvelles · Sedan · Rethel · Ailette · Aisne · Vouziers · Aire · Beauvais · Compiègne · Vic · Soissons · Verberie · Néry · Senlis · Nanteuil · Fismes · Vesle · Rheims · Suippes · Ourcq · Château Thierry · Épernay · MARNE · Montmirail · Châlons-sur-Marne · St. Ménehould · Meaux · Oise · Seine · ADVANCED DEFENCES OF PARIS · Versailles · PARIS · Lagny · Coulommiers · Petit Morin · Grand Morin · Esternay · Vitry-le-François · ADVANCED PARIS DEFENCES · Melun

Fourth Army · Fifth Army · Sixth Army · Foch "detachment" · Ninth Army · Sordet's Cavalry Corps · Conneau's Cavalry Corps · British Expeditionary Force

*Note: on 25 August, the Germans transferred four divisions to the Eastern Front. This move weakened their right wing, already depleted by seven divisions investing the by-passed Allied fortresses.*

## KEY TO ALLIED ARMIES OF THE LEFT
**(approx. 700,000 troops on 23 August 1914)**

- Fourth Army (commanded by General Langle de Cary).
- Fifth Army (commanded by General Lanrezac until replaced by General d'Esperey on 3 September 1914).
- Sixth Army (commanded by General Maunoury until replaced by General Galliéni on 1 September 1914).
- Foch "detachment" (commanded by General Foch, and formed on 29 August 1914).
- Ninth Army (formerly the Foch "detachment").
- Sordet's Cavalry Corps (Sordet was replaced by General Bridoux on 8 September 1914).
- Conneau's Cavalry Corps.
- British Expeditionary Force (commanded by Sir John French).

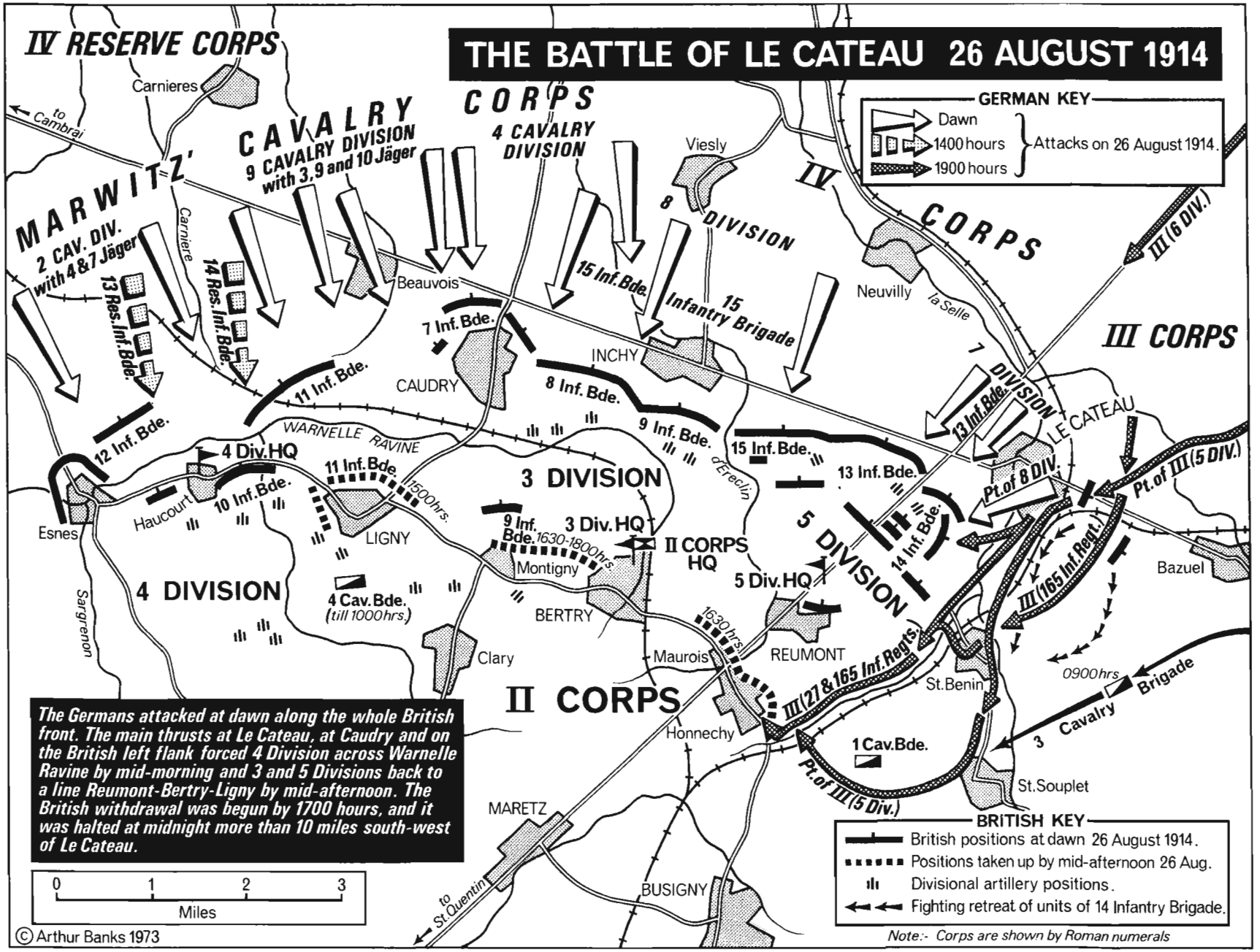
## KEY TO GERMAN ARMIES OF THE RIGHT
**(approx. 760,000 troops on 23 August 1914)**

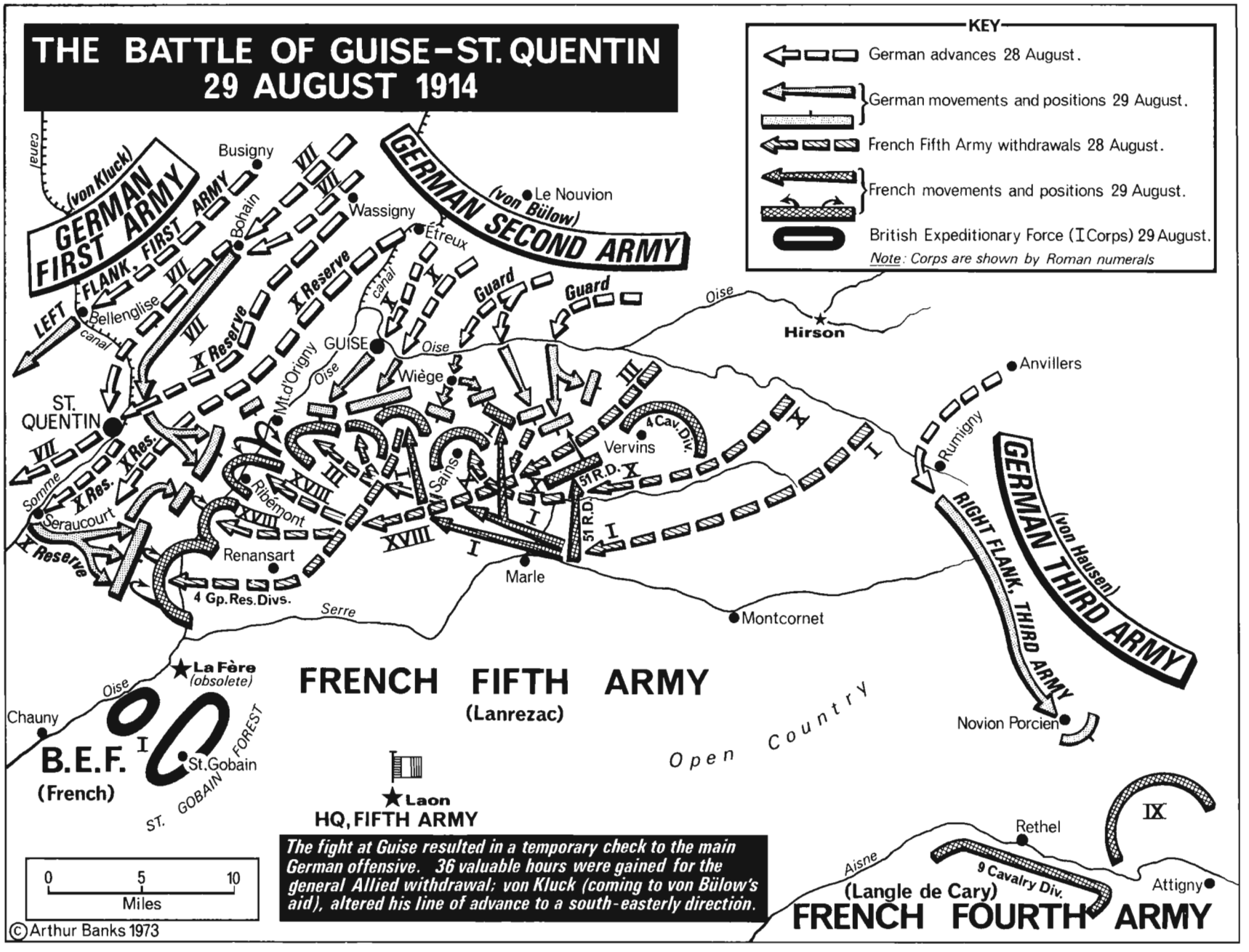
FIRST ARMY (commanded by Generaloberst von Kluck).

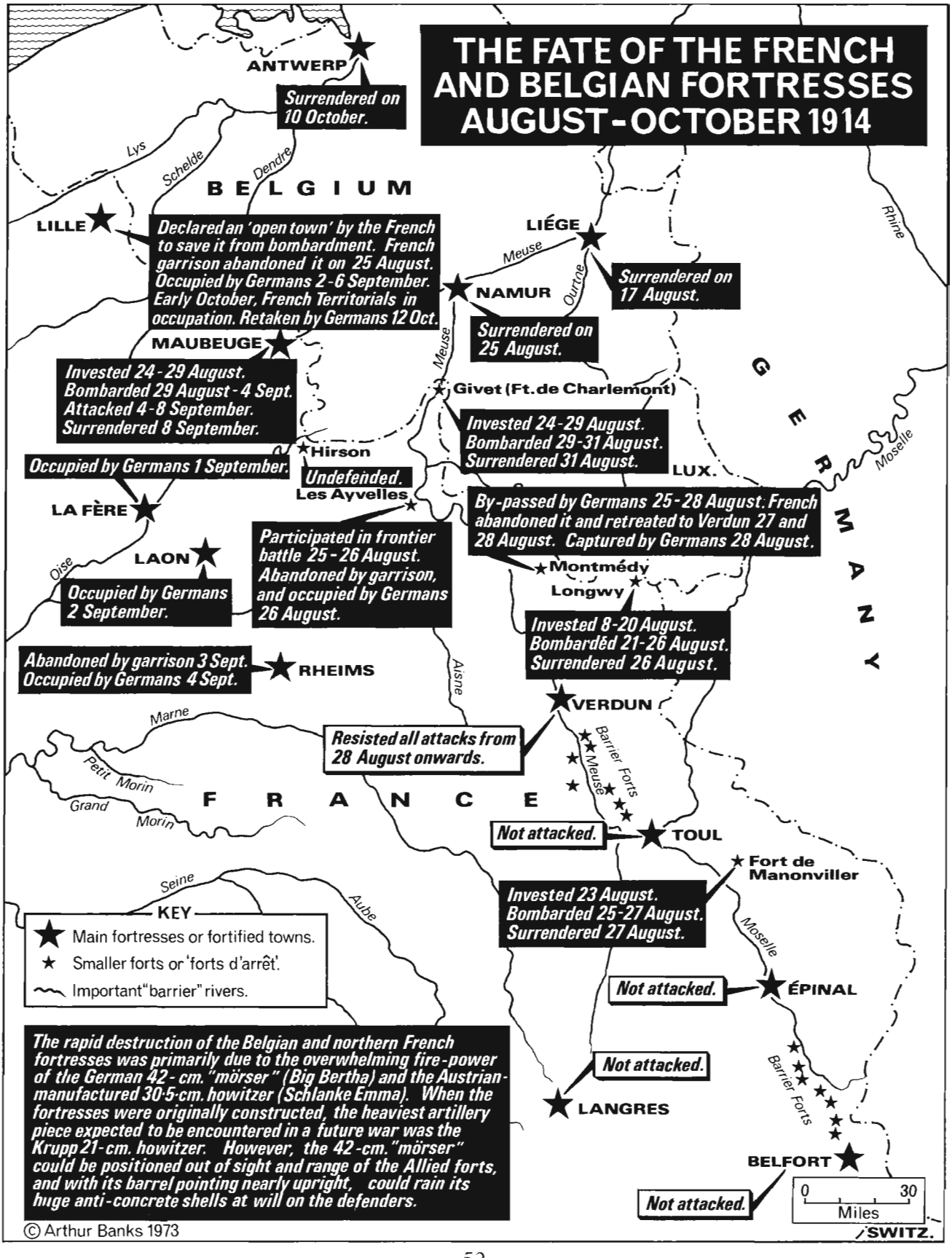
SECOND ARMY (commanded by Generaloberst von Bülow).

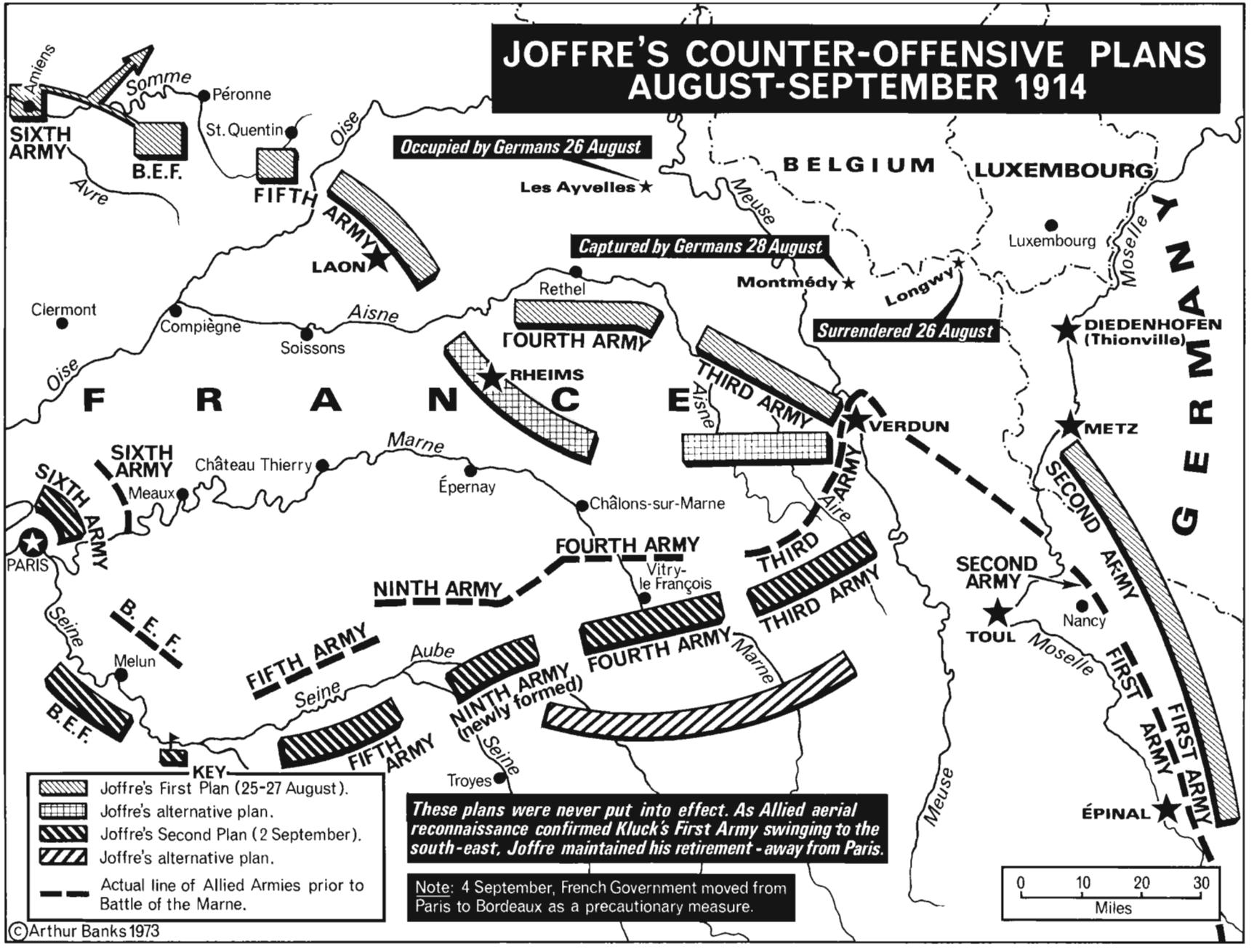
THIRD ARMY (commanded by Generaloberst von Hausen).

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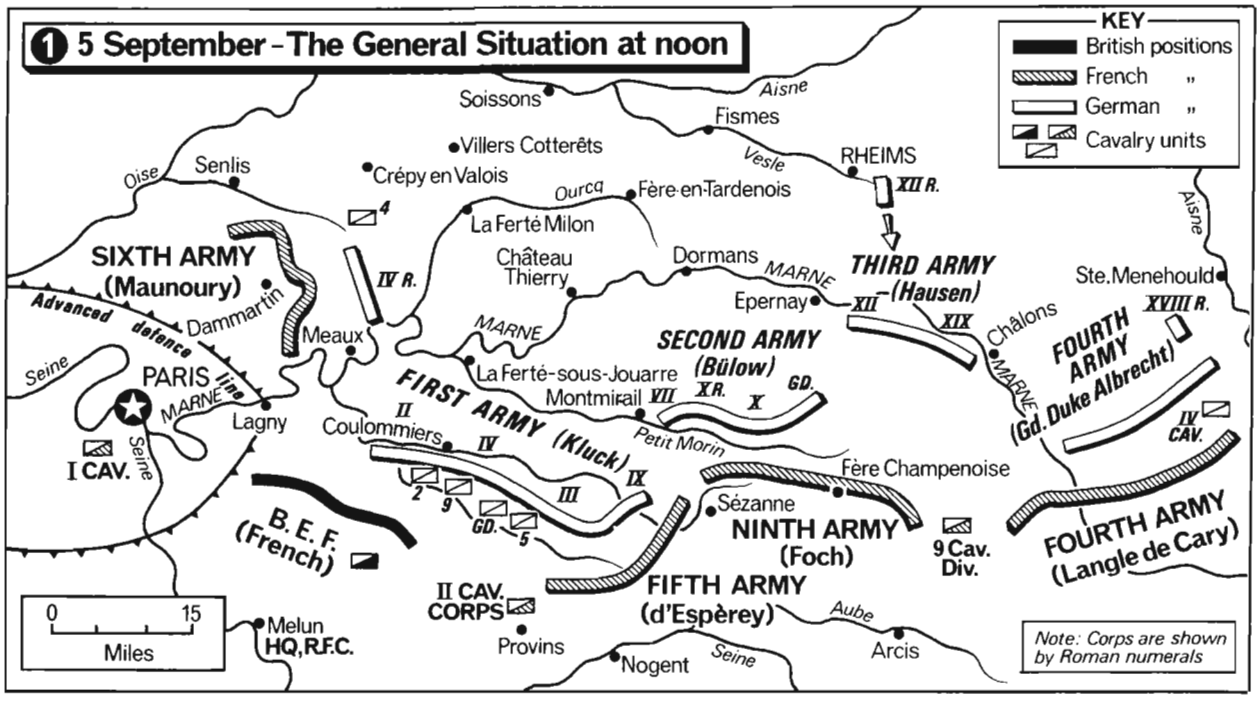

THE BATTLE OF LE CATEAU 26 AUGUST 1914
IV RESERVE CORPS
MARWITZ'
CAVALRY CORPS
2 CAV. DIV. with 4 & 7 Jäger
9 CAVALRY DIVISION with 3, 9 and 10 Jäger
4 CAVALRY DIVISION
IV CORPS
III CORPS
II CORPS
8 DIVISION
7 DIVISION
5 DIVISION
4 DIVISION
3 DIVISION
15 Infantry Brigade
4 Cavalry Brigade
3 Cavalry Brigade
1 Cav.Bde.
4 Cav.Bde. (till 1000hrs.)
II CORPS HQ
3 Div.HQ
4 Div.HQ
5 Div.HQ
12 Inf.Bde.
13 Res.Inf.Bde.
14 Res.Inf.Bde.
11 Inf.Bde.
10 Inf.Bde.
9 Inf.Bde.
8 Inf.Bde.
7 Inf.Bde.
15 Inf.Bde.
13 Inf.Bde.
14 Inf.Bde.
9 Inf.Bde. 1630-1800hrs.
1500hrs.
1630hrs.
0900hrs
III(6 DIV.)
Pt.of 8 DIV.
Pt.of III(5 DIV.)
III(165 Inf.Regt.)
III(27 & 165 Inf.Regts.)
Pt.of III(5 Div.)
Carnieres
to Cambrai
Carniere
Beauvois
Viesly
Neuvilly
la Selle
INCHY
CAUDRY
WARNELLE RAVINE
d'Ereclin
LE CATEAU
Esnes
Haucourt
LIGNY
Montigny
BERTRY
Clary
Maurois
REUMONT
St.Benin
Honnechy
St.Souplet
Bazuel
MARETZ
BUSIGNY
to St.Quentin
Sargrenon
GERMAN KEY
Dawn
1400 hours
1900 hours
Attacks on 26 August 1914.
BRITISH KEY
British positions at dawn 26 August 1914.
Positions taken up by mid-afternoon 26 Aug.
Divisional artillery positions.
Fighting retreat of units of 14 Infantry Brigade.
The Germans attacked at dawn along the whole British front. The main thrusts at Le Cateau, at Caudry and on the British left flank forced 4 Division across Warnelle Ravine by mid-morning and 3 and 5 Divisions back to a line Reumont-Bertry-Ligny by mid-afternoon. The British withdrawal was begun by 1700 hours, and it was halted at midnight more than 10 miles south-west of Le Cateau.
0 1 2 3
Miles
© Arthur Banks 1973
Note:- Corps are shown by Roman numerals

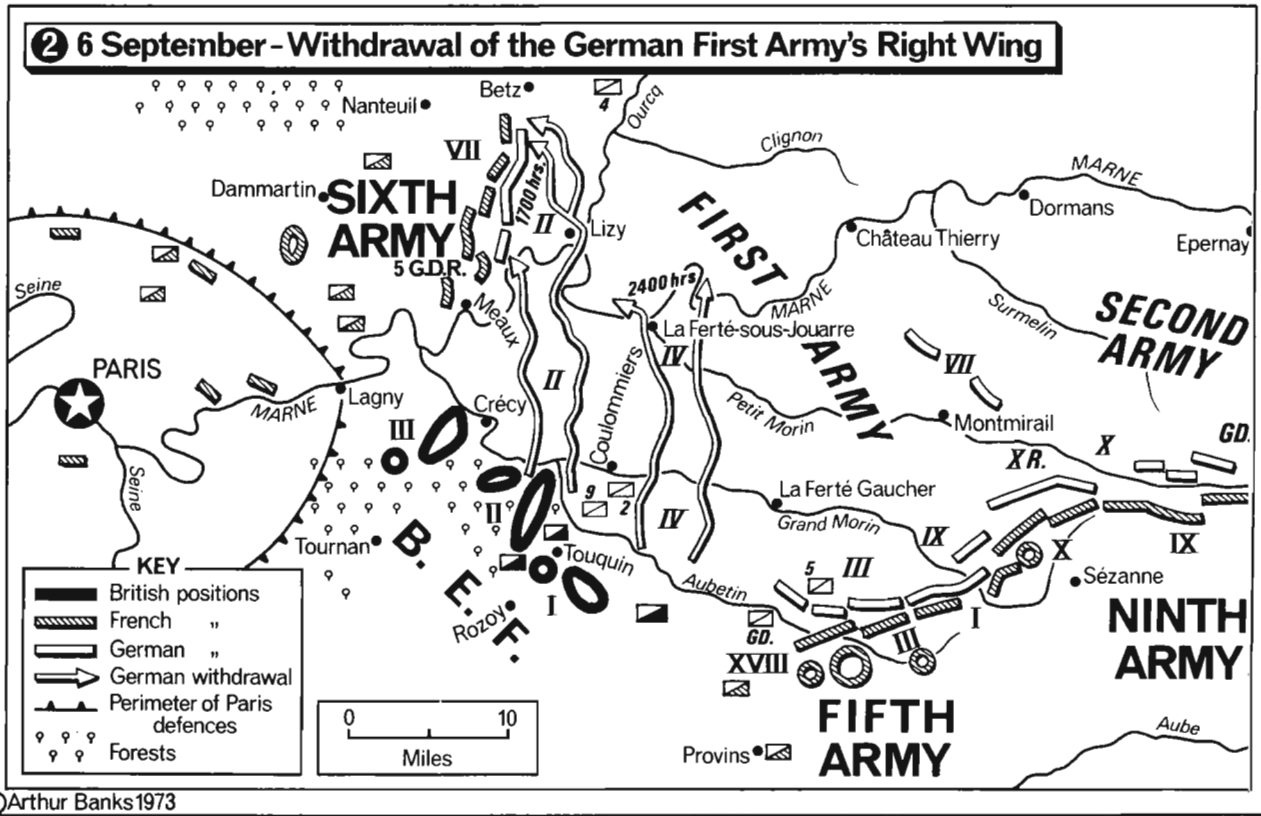

THE BATTLE OF GUISE–ST. QUENTIN
29 AUGUST 1914
KEY
German advances 28 August.
German movements and positions 29 August.
French Fifth Army withdrawals 28 August.
French movements and positions 29 August.
British Expeditionary Force (I Corps) 29 August.
Note: Corps are shown by Roman numerals
GERMAN FIRST ARMY
(von Kluck)
GERMAN SECOND ARMY
(von Bülow)
GERMAN THIRD ARMY
(von Hausen)
FRENCH FIFTH ARMY
(Lanrezac)
FRENCH FOURTH ARMY
(Langle de Cary)
B.E.F.
(French)
HQ, FIFTH ARMY
Busigny
Wassigny
Le Nouvion
Étreux
Bohain
Bellenglise
GUISE
Wiège
Mt.d'Origny
ST. QUENTIN
Hirson
Anvillers
Rumigny
Vervins
Renansart
Marle
Montcornet
Novion Porcien
Chauny
St.Gobain
ST. GOBAIN FOREST
La Fère (obsolete)
Laon
Rethel
Attigny
Oise
Somme
Serre
Aisne
canal
Open Country
4 Gp. Res. Divs.
4 Cav. Div.
9 Cavalry Div.
51 R.D.
RIGHT FLANK, THIRD ARMY
FLANK, FIRST ARMY
LEFT
Guard
X Reserve
X Res.
0 5 10
Miles
The fight at Guise resulted in a temporary check to the main German offensive. 36 valuable hours were gained for the general Allied withdrawal; von Kluck (coming to von Bülow's aid), altered his line of advance to a south-easterly direction.
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THE FATE OF THE FRENCH AND BELGIAN FORTRESSES AUGUST-OCTOBER 1914
ANTWERP
Surrendered on 10 October.
Lys
Schelde
Dendre
BELGIUM
LILLE
Declared an 'open town' by the French to save it from bombardment. French garrison abandoned it on 25 August. Occupied by Germans 2-6 September. Early October, French Territorials in occupation. Retaken by Germans 12 Oct.
LIÉGE
Meuse
Ourthe
Surrendered on 17 August.
NAMUR
Surrendered on 25 August.
Rhine
MAUBEUGE
Invested 24-29 August. Bombarded 29 August - 4 Sept. Attacked 4-8 September. Surrendered 8 September.
Meuse
Givet (Ft.de Charlemont)
Invested 24-29 August. Bombarded 29-31 August. Surrendered 31 August.
GERMANY
Occupied by Germans 1 September.
Hirson
Undefended.
Les Ayvelles
LUX.
Moselle
LA FÈRE
By-passed by Germans 25-28 August. French abandoned it and retreated to Verdun 27 and 28 August. Captured by Germans 28 August.
Participated in frontier battle 25-26 August. Abandoned by garrison, and occupied by Germans 26 August.
Oise
LAON
Occupied by Germans 2 September.
Montmédy
Longwy
Invested 8-20 August. Bombarded 21-26 August. Surrendered 26 August.
Abandoned by garrison 3 Sept. Occupied by Germans 4 Sept.
RHEIMS
Aisne
VERDUN
Marne
Resisted all attacks from 28 August onwards.
Barrier Forts
Meuse
Petit Morin
Grand Morin
FRANCE
Not attacked.
TOUL
Fort de Manonviller
Seine
Aube
Invested 23 August. Bombarded 25-27 August. Surrendered 27 August.
Moselle
Not attacked.
ÉPINAL
KEY
Main fortresses or fortified towns.
Smaller forts or 'forts d'arrêt'.
Important "barrier" rivers.
Not attacked.
Barrier Forts
LANGRES
BELFORT
Not attacked.
0 30
Miles
SWITZ.
The rapid destruction of the Belgian and northern French fortresses was primarily due to the overwhelming fire-power of the German 42-cm. "mörser" (Big Bertha) and the Austrian-manufactured 30·5-cm. howitzer (Schlanke Emma). When the fortresses were originally constructed, the heaviest artillery piece expected to be encountered in a future war was the Krupp 21-cm. howitzer. However, the 42-cm. "mörser" could be positioned out of sight and range of the Allied forts, and with its barrel pointing nearly upright, could rain its huge anti-concrete shells at will on the defenders.
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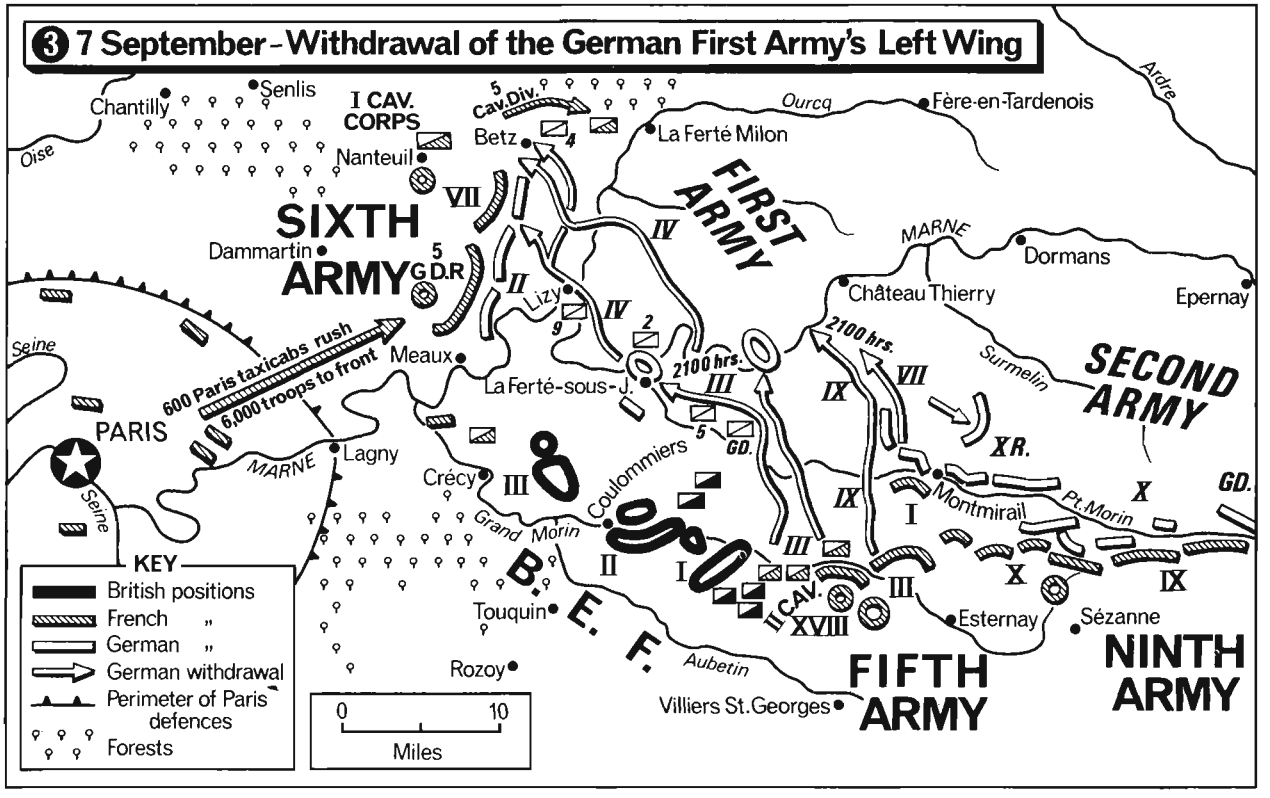

JOFFRE'S COUNTER-OFFENSIVE PLANS
AUGUST-SEPTEMBER 1914
Amiens
Somme
Péronne
St. Quentin
Oise
SIXTH ARMY
B.E.F.
Avre
FIFTH ARMY
LAON
Occupied by Germans 26 August
Les Ayvelles
BELGIUM
LUXEMBOURG
Meuse
Captured by Germans 28 August
Montmédy
Longwy
Surrendered 26 August
Luxembourg
Moselle
GERMANY
DIEDENHOFEN (Thionville)
Clermont
Compiègne
Soissons
Aisne
Oise
Rethel
FOURTH ARMY
RHEIMS
FRANCE
THIRD ARMY
Aisne
VERDUN
METZ
SECOND ARMY
Marne
SIXTH ARMY
Château Thierry
Meaux
Épernay
Châlons-sur-Marne
Aire
ARMY
PARIS
FOURTH ARMY
Vitry-le François
NINTH ARMY
THIRD
THIRD ARMY
SECOND ARMY
Nancy
TOUL
Seine
B.E.F.
Melun
FIFTH ARMY
Aube
NINTH ARMY (newly formed)
FOURTH ARMY
Marne
Moselle
FIRST
FIRST ARMY
B.E.F.
KEY
FIFTH ARMY
Seine
Troyes
Meuse
ÉPINAL
Joffre's First Plan (25-27 August).
Joffre's alternative plan.
Joffre's Second Plan (2 September).
Joffre's alternative plan.
Actual line of Allied Armies prior to Battle of the Marne.
These plans were never put into effect. As Allied aerial reconnaissance confirmed Kluck's First Army swinging to the south-east, Joffre maintained his retirement - away from Paris.
Note: 4 September, French Government moved from Paris to Bordeaux as a precautionary measure.
0 10 20 30
Miles
©Arthur Banks 1973

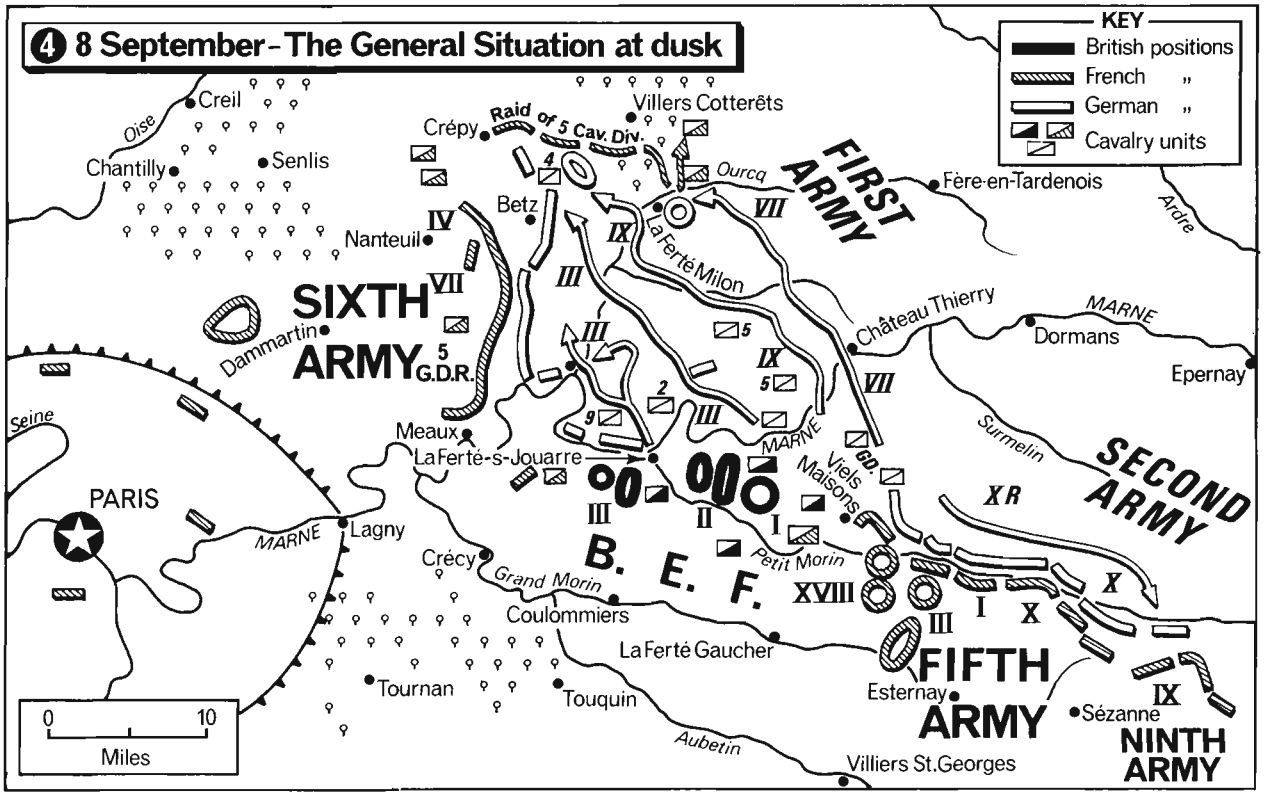
# THE FIRST BATTLE OF THE MARNE 5-10 SEPTEMBER 1914



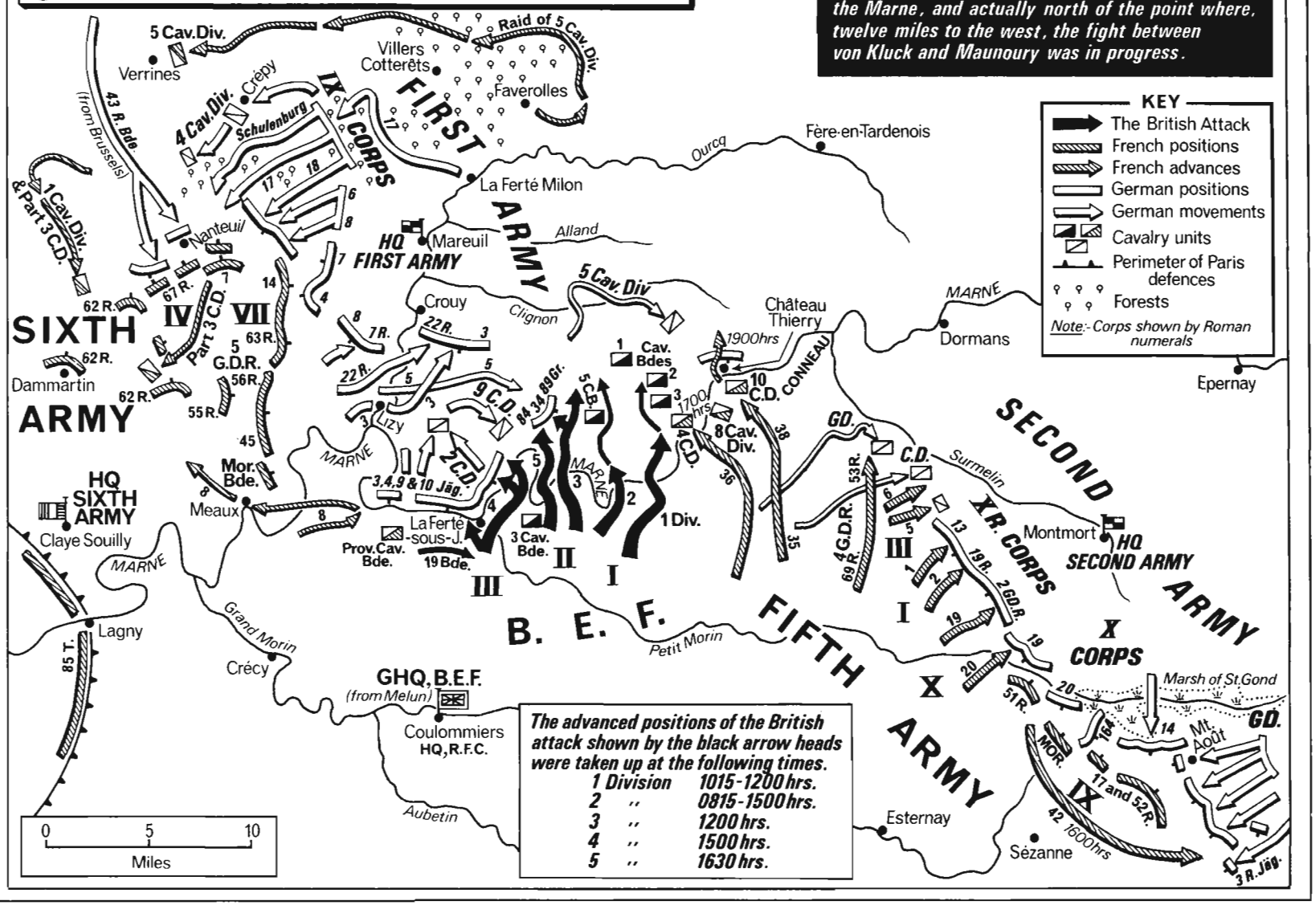

©Arthur Banks 1973


3 7 September - Withdrawal of the German First Army's Left Wing
Chantilly
Senlis
I CAV. CORPS
5 Cav.Div.
Betz
Ourcq
Fère-en-Tardenois
La Ferté Milon
Ardre
Oise
Nanteuil
VII
FIRST ARMY
SIXTH ARMY
Dammartin
5 G.D.R
IV
MARNE
Dormans
Château Thierry
Epernay
II
Lizy
9
2
2100 hrs.
Seine
600 Paris taxicabs rush
6,000 troops to front
Meaux
La Ferté-sous-J.
III
5
GD.
IX
VII
Surmelin
SECOND ARMY
PARIS
Lagny
Crécy
Coulommiers
XR.
Montmirail
Pt.Morin
X
GD.
I
Grand Morin
B. E. F.
II
XVIII
II CAV.
Esternay
Sézanne
Touquin
Aubetin
Rozoy
Villiers St.Georges
FIFTH ARMY
NINTH ARMY
KEY
British positions
French „
German „
German withdrawal
Perimeter of Paris defences
Forests
0
10
Miles


4 8 September - The General Situation at dusk
KEY
British positions
French „
German „
Cavalry units
Creil
Oise
Villers Cotterêts
Crépy
Raid of 5 Cav. Div.
Chantilly
Senlis
Ourcq
FIRST ARMY
Fère-en-Tardenois
Ardre
Betz
IV
IX
La Ferté Milon
VII
Nanteuil
SIXTH ARMY
Dammartin
5 G.D.R
III
Château Thierry
MARNE
Dormans
Epernay
5
2
9
Seine
Meaux
La Ferté-s-Jouarre
Surmelin
SECOND ARMY
XR
PARIS
Lagny
Crécy
Grand Morin
Viels Maisons
Petit Morin
B. E. F.
XVIII
Coulommiers
La Ferté Gaucher
Tournan
Touquin
Esternay
FIFTH ARMY
Sézanne
NINTH ARMY
Aubetin
Villiers St.Georges
0
10
Miles

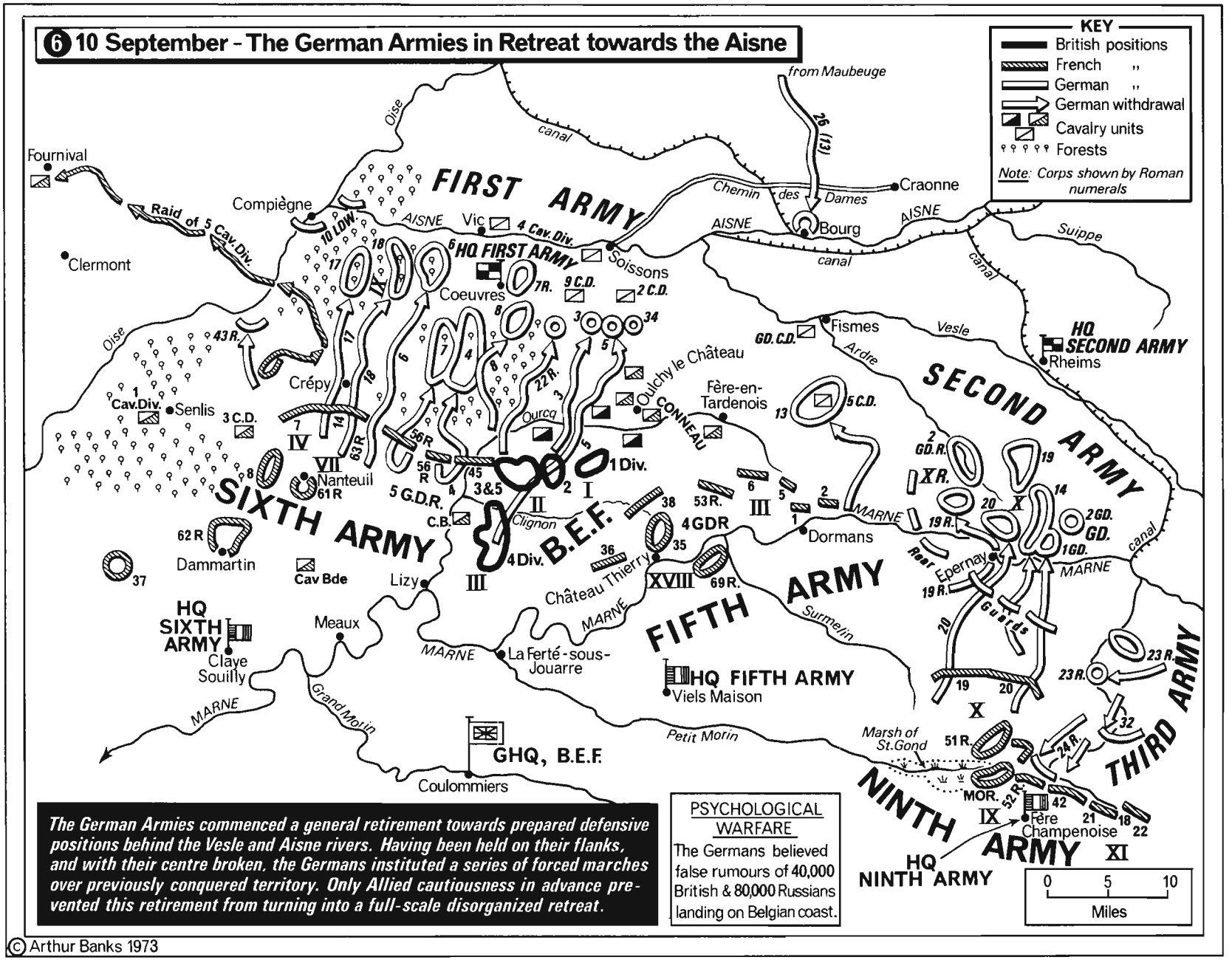
## 5 9 September - The British Attack across the Marne

*The British found the bridges west of Château Thierry unbroken, and no enemy to hold the river. The German guns did not open fire until the British 3 Division (II Corps) was some four miles beyond the Marne, and actually north of the point where, twelve miles to the west, the fight between von Kluck and Maunoury was in progress.*



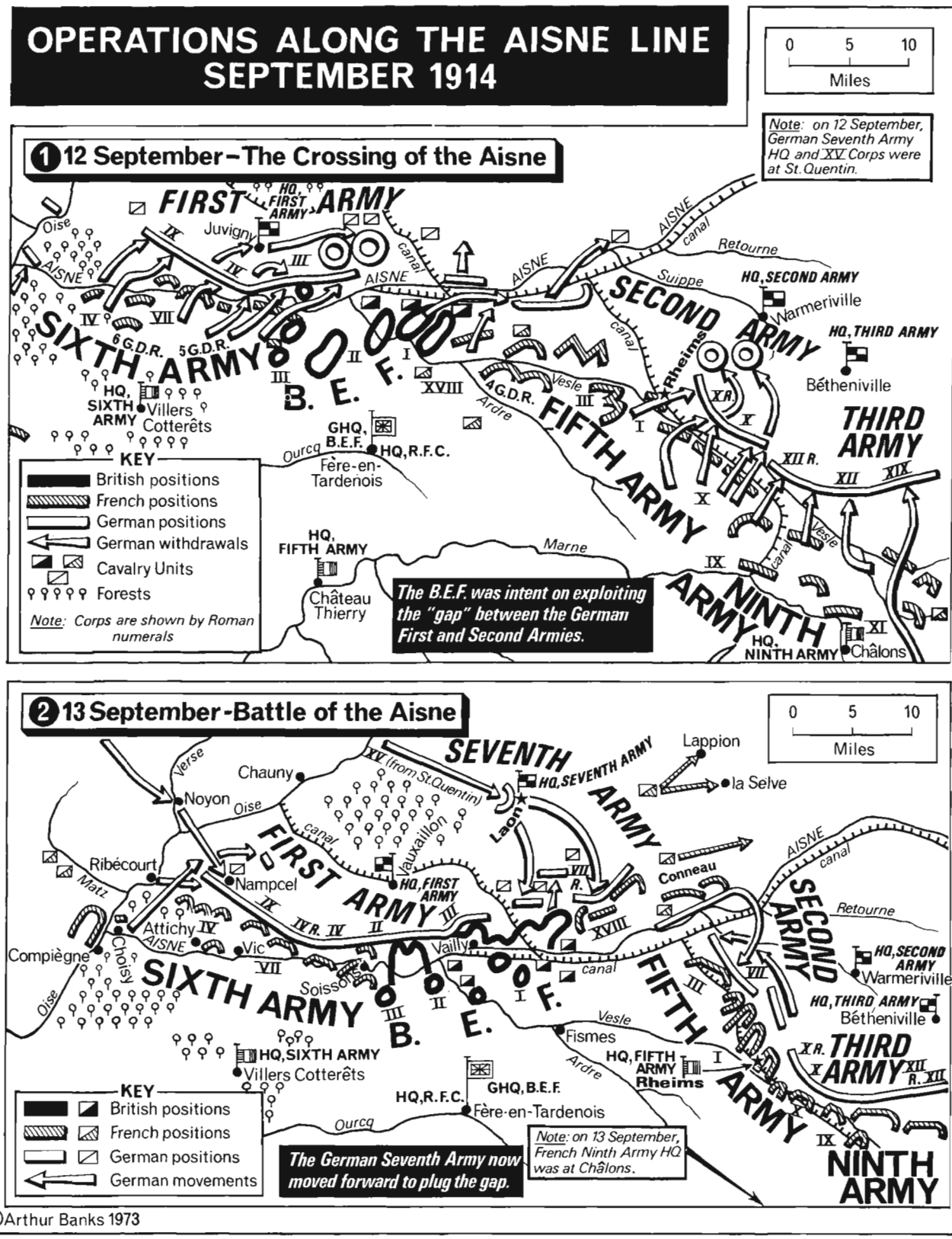

*The advanced positions of the British attack shown by the black arrow heads were taken up at the following times.*

| | | |
|---|---|---|
| *1 Division* | | *1015-1200 hrs.* |
| *2* | *,,* | *0815-1500 hrs.* |
| *3* | *,,* | *1200 hrs.* |
| *4* | *,,* | *1500 hrs.* |
| *5* | *,,* | *1630 hrs.* |

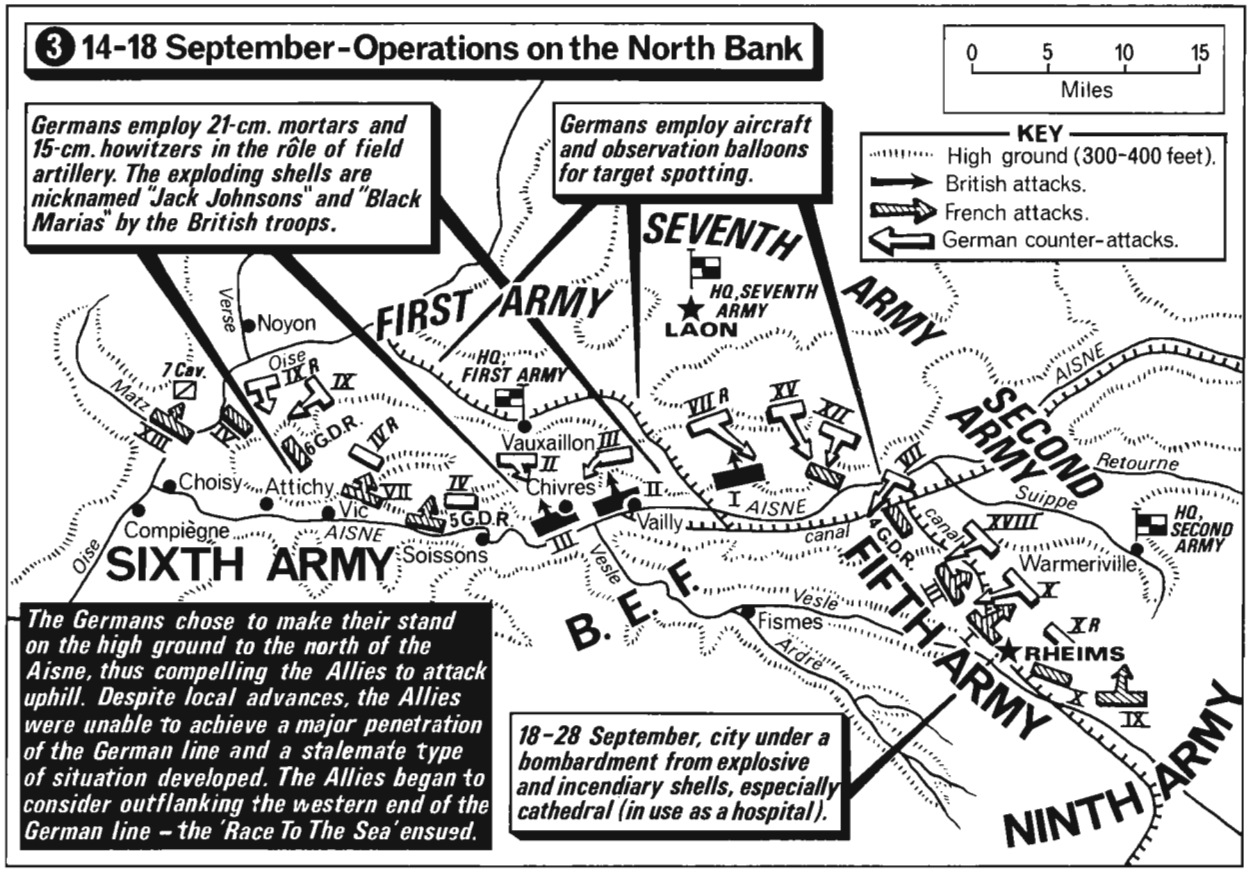


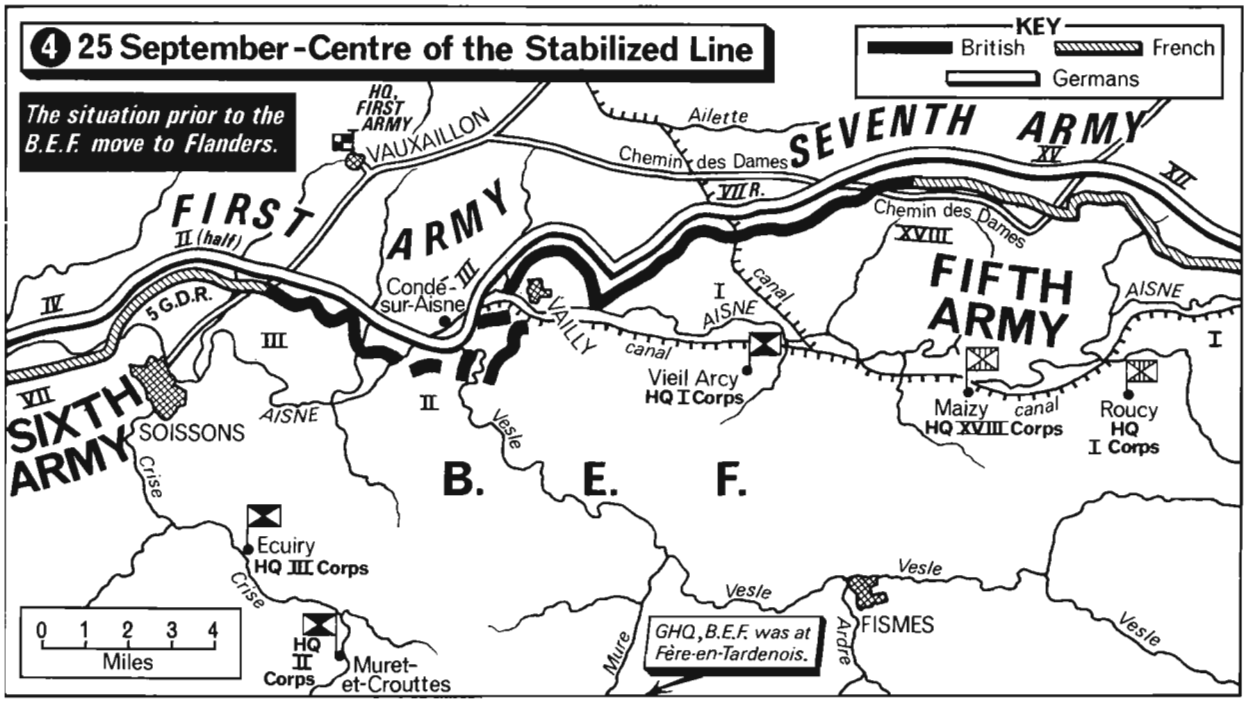

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# OPERATIONS ALONG THE AISNE LINE SEPTEMBER 1914



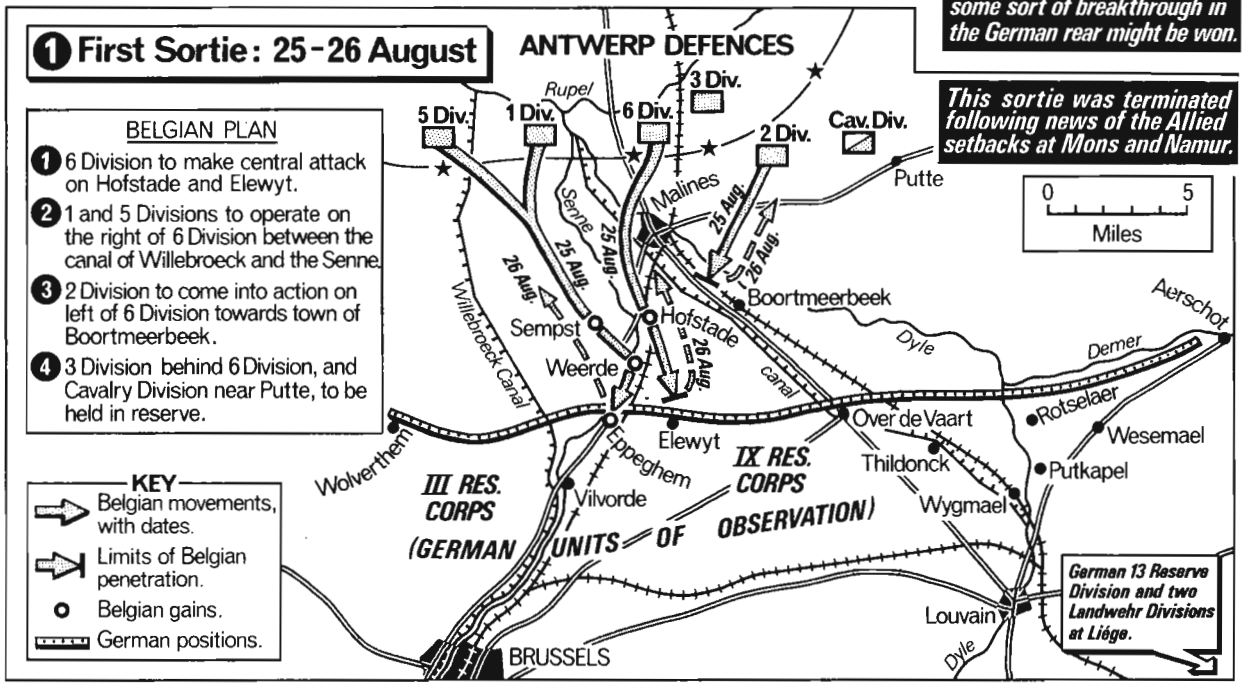

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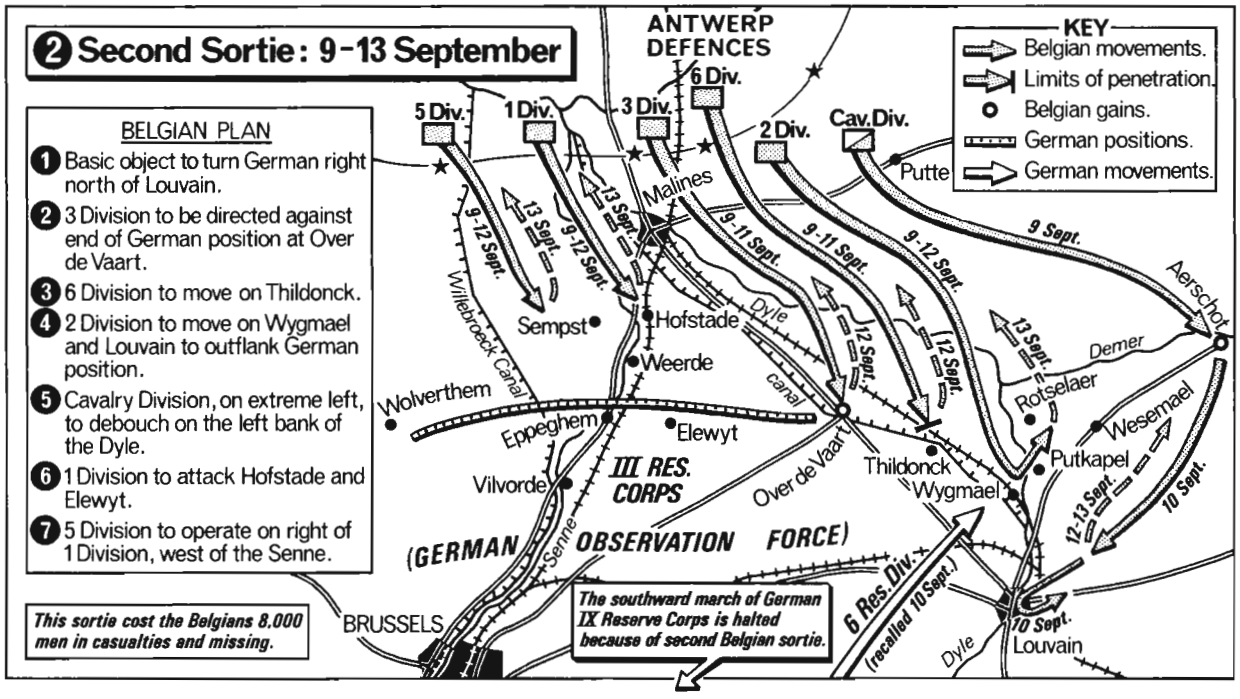

3 14-18 September - Operations on the North Bank
0 5 10 15
Miles
KEY
High ground (300-400 feet).
British attacks.
French attacks.
German counter-attacks.
Germans employ 21-cm. mortars and 15-cm. howitzers in the rôle of field artillery. The exploding shells are nicknamed "Jack Johnsons" and "Black Marias" by the British troops.
Germans employ aircraft and observation balloons for target spotting.
SEVENTH ARMY
HQ, SEVENTH ARMY
LAON
FIRST ARMY
HQ, FIRST ARMY
SECOND ARMY
HQ, SECOND ARMY
FIFTH ARMY
SIXTH ARMY
NINTH ARMY
B. E. F.
Noyon
Verse
Oise
Matz
7 Cav.
Choisy
Attichy
Vic
Compiègne
Soissons
Vauxaillon
Chivres
Vailly
AISNE
canal
Retourne
Suippe
Warmeriville
RHEIMS
Fismes
Vesle
Ardre
6 G.D.R.
5 G.D.R.
4 G.D.R.
The Germans chose to make their stand on the high ground to the north of the Aisne, thus compelling the Allies to attack uphill. Despite local advances, the Allies were unable to achieve a major penetration of the German line and a stalemate type of situation developed. The Allies began to consider outflanking the western end of the German line – the 'Race To The Sea' ensued.
18-28 September, city under a bombardment from explosive and incendiary shells, especially cathedral (in use as a hospital).


4 25 September - Centre of the Stabilized Line
KEY
British
French
Germans
The situation prior to the B.E.F. move to Flanders.
HQ, FIRST ARMY
VAUXAILLON
FIRST ARMY
SEVENTH ARMY
FIFTH ARMY
SIXTH ARMY
Ailette
Chemin des Dames
Condé-sur-Aisne
VAILLY
Vieil Arcy
HQ I Corps
Maizy
HQ XVIII Corps
Roucy
HQ I Corps
SOISSONS
AISNE
canal
Vesle
Crise
Ecuiry
HQ III Corps
HQ II Corps
Muret-et-Crouttes
FISMES
Ardre
Mure
B. E. F.
0 1 2 3 4
Miles
GHQ, B.E.F. was at Fère-en-Tardenois.

# BELGIAN SORTIES FROM ANTWERP AUGUST-SEPTEMBER 1914

*The main object of the sorties was to divert part of German strength from their main lines of advance into France. There was also the minor hope that some sort of breakthrough in the German rear might be won.*



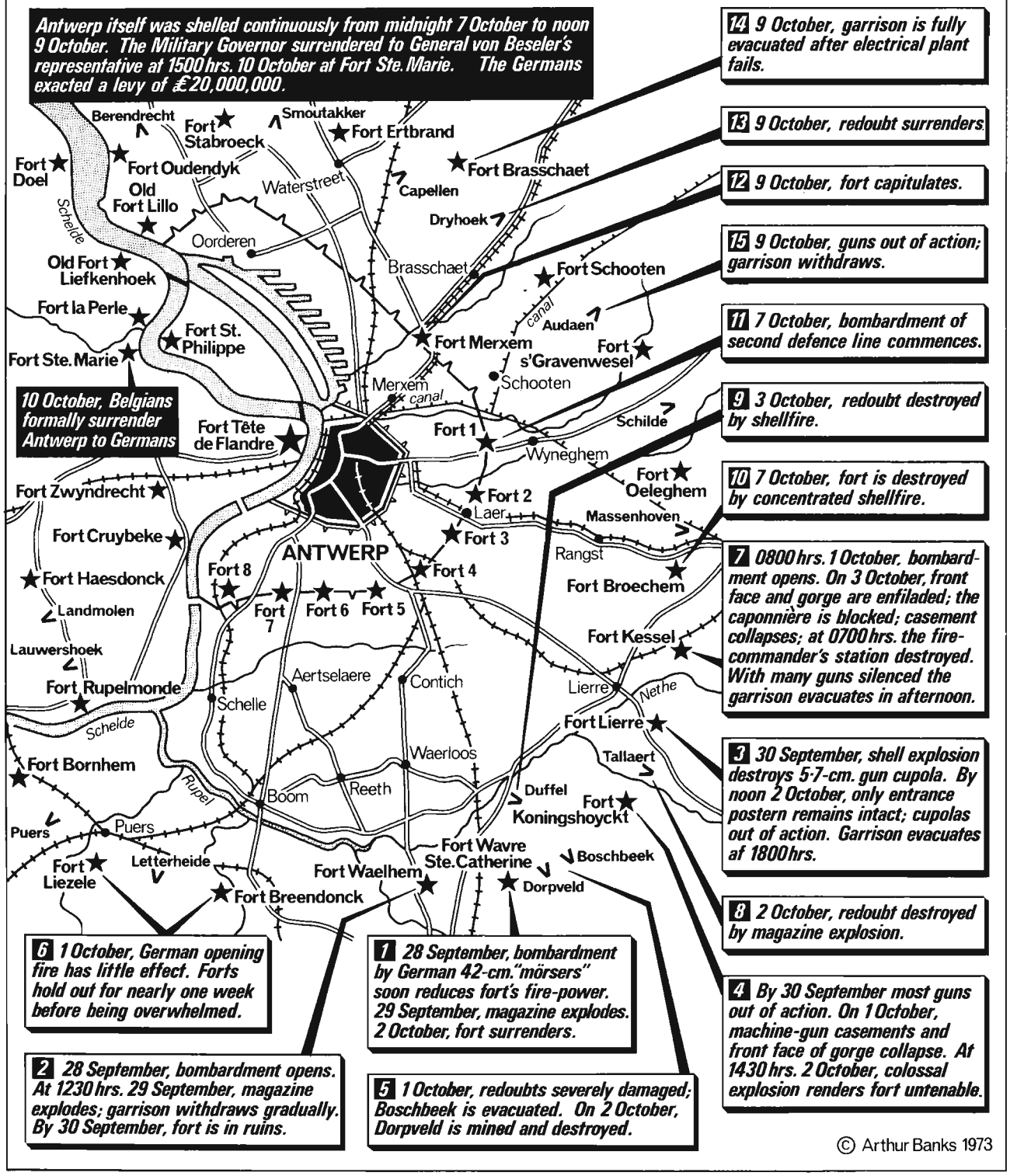

*On 27 September, 700 Belgian cyclist volunteers arranged in seven detachments, left Antwerp to destroy railway lines of communication in enemy-occupied region outside the fortress. Main lines were severed in Limbourg, Brabant and Hainaut provinces, disrupting German transport. Most cyclists returned to Antwerp, but some were captured.*

*A third sortie, requested by Joffre on 24 September, never materialised as the Germans launched their offensive on Antwerp shortly after Joffre's request.*

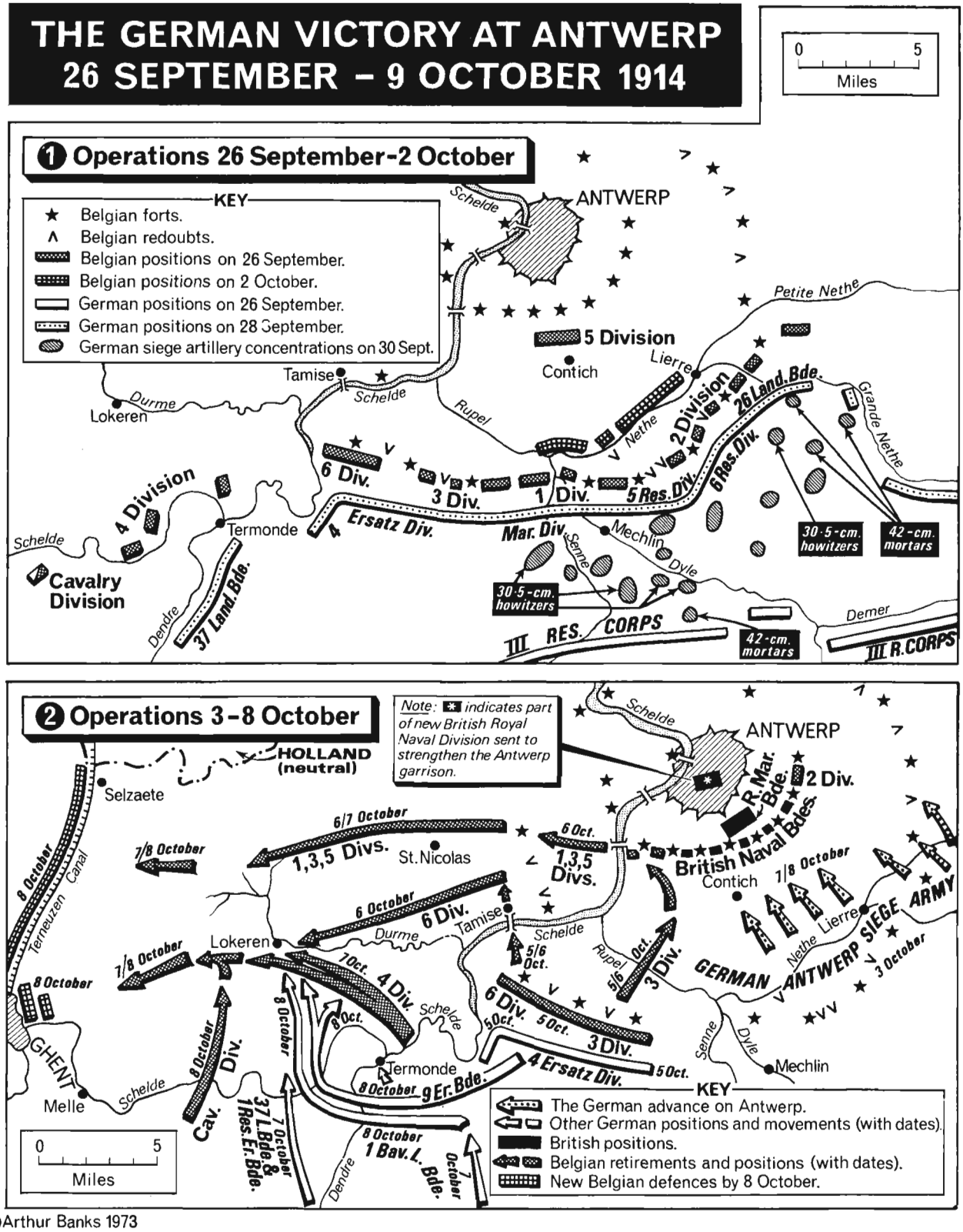
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# BOMBARDMENT OF THE ANTWERP FORTS
## 28 SEPTEMBER–9 OCTOBER 1914

*Note: all times shown in panels are Belgian; German time was one hour later.*

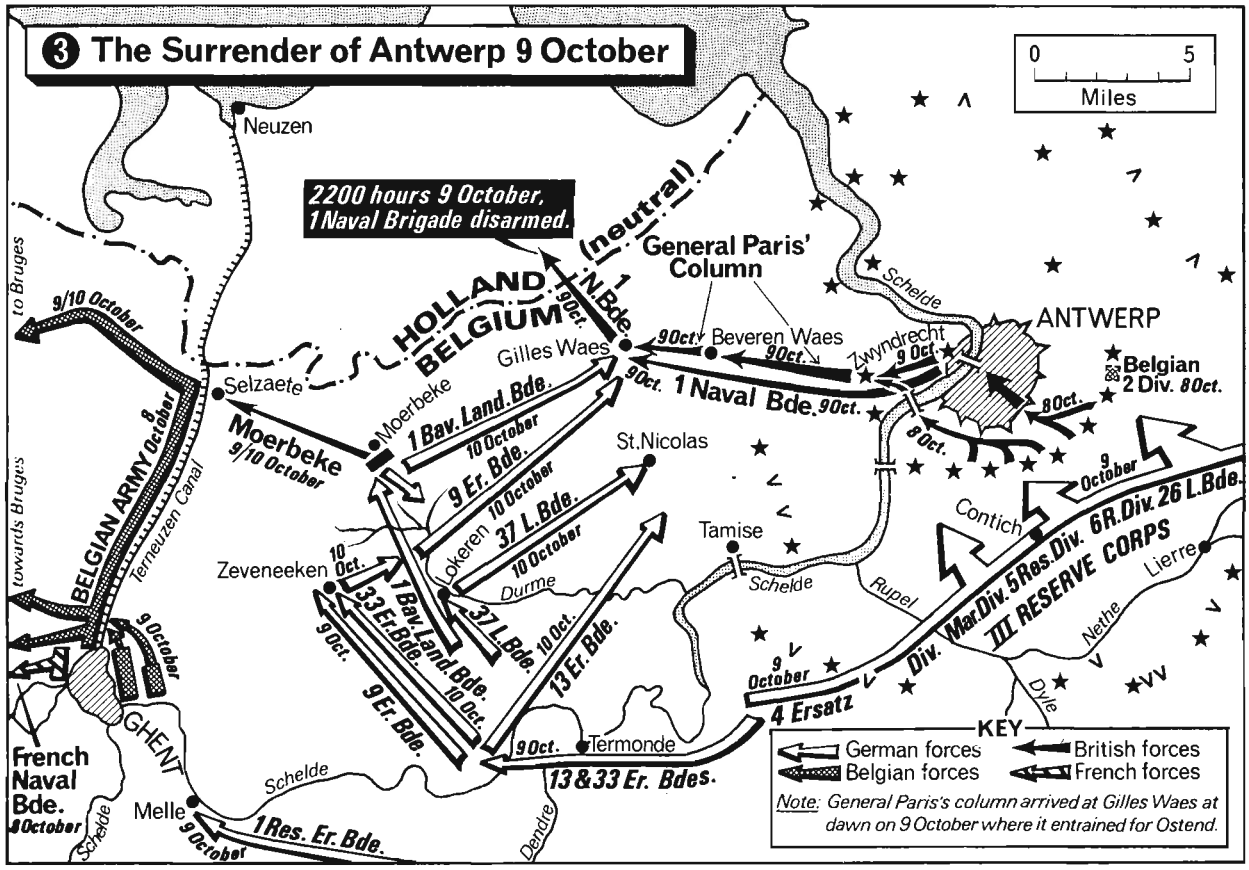


# THE GERMAN VICTORY AT ANTWERP 26 SEPTEMBER – 9 OCTOBER 1914




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## ❸ The Surrender of Antwerp 9 October



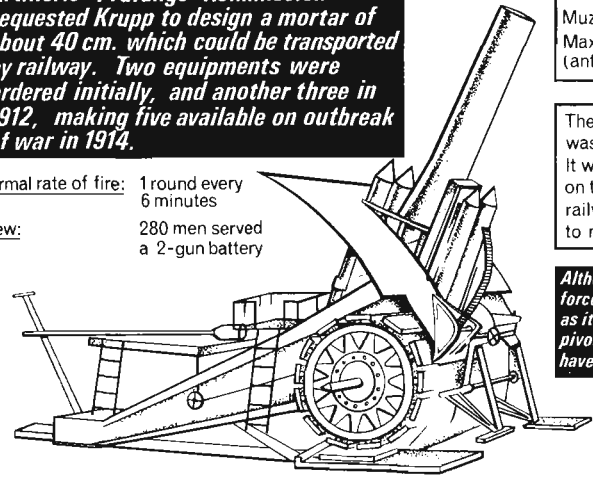

## German 42-cm. (16·5-inch) L/16 Mortar "Gamma"

*In July 1906, in accordance with the German General Staff directive, the Artillerie-Prüfungs-Kommission requested Krupp to design a mortar of about 40 cm. which could be transported by railway. Two equipments were ordered initially, and another three in 1912, making five available on outbreak of war in 1914.*

| | |
|---|---|
| Elevation: | 43°- 66° |
| Traverse: | 45° |
| Weight with platform: | 75 tons |
| Muzzle velocity: | 1,312 ft-secs. |
| Maximum range: (anti-concrete shell) | 15,500 yards |

Normal rate of fire: 1 round every 6 minutes

Crew: 280 men served a 2-gun battery



The mortar had a recoiling barrel and was mounted on an iron platform. It was transported in separate loads on ten normal-gauge 25/30-ton railway wagons, and took ten hours to mount.

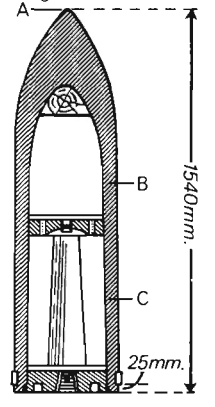
*Although named a 'Mörser' by the German forces, the 42 was technically a howitzer as it was capable of being elevated and pivoted on trunnions, whereas mortars have rear trunnions on fixed beds.*

The first naval battery to be armed with the original two mortars was formed and trained in the summer of 1912.

*The weapon was known as "Big Bertha" or "Fat Bertha".*

## German 42-cm. H.E. Shell

Weight (shell complete): 2,052 lb.
Bursting charge: 234 lb.




| | |
|---|---|
| Thickness of walls: | at A, 295 mm. |
| | at B, 52 mm. |
| | at C, 46 mm. |
| Thickness of base: | 95 mm. |
| Width of driving band: | 50 mm. |
| Construction material: | Steel |

# THE ALLIED WITHDRAWAL TO THE YSER-LYS POSITION 9-15 OCTOBER 1914

**KEY**

- Belgian movements and positions.
- British movements and positions.
- French movements and positions.
- Direction of German advance from Antwerp.
- Area in which German IV Cavalry Corps was active (5-10 October).
- Allied cavalry units. (*Belgian, British, French*)

*British 7 Division landed at Zeebrugge on 6-7 October and journeyed to Ostend (via Bruges) arriving 8 October. 3 Cavalry Division landed at Ostend on 8 October. On 9 October, 7 Division (comprising 1 Brigade and 5 Batteries) and 3 Cavalry Division were at Bruges. On the same day, the remainder of 7 Division was at Ghent.*

NORTH SEA

OSTEND

BRUGES

7 Div. (part) 9 October

3 Cav. Div.

10 October

5 & 2 (part) Divs.

9 October

5 & 2 (part) Divs.

Eecloo

Schipdonck

10 October

Second possible defensive position which was rejected.

HOLLAND

BELGIUM

Selzaete

8 October

BELGIAN ARMY

Terneuzen Canal

GERMAN ADVANCE

Possible first defensive line which was rejected.

12 October

14 October

GHISTELLES

2 Div.

NIEUPORT

1 Div.

2 Cav. Div.

FURNES

4 Div.

3 Div.

5 Div.

BELGIAN ARMY

13 October

Yser

15 October

BELGIUM FRANCE

DUNKIRK

Naval Bde

DIXMUDE

Third possible line for defensive stand which was accepted

1 Cav. Div. 15 October

6 Div.

Canal

Yser

11/12 October

3 Cav. Div.

THOURout

3,4,5 Divs. 10 October

7 Div.(part) 11 October

Beernem

7 Div.(part) 12 October

AELTRE

3,4,5 Divs. 9/10 October

10/11 October

7 Div.(whole)

Naval Bde. 12 October

Naval Bde. 13 October

THIELT

7 Div. 13 October

ROULERS

GHENT

7 Div. (part)

Naval Bde.

Lys

Schelde

87 (Terr.) Div. (part)

9 October

POPERINGHE

Passchendaele

7 Div.

3 Cav. Div.

14 October

YPRES

COURTRAI

MENIN

Lys

3 Cav. Div. 14 October

Kemmel

Wytschaete

Messines

BAILLEUL

BELGIUM FRANCE

Deule Canalised

Lys

ARMENTIÈRES

Sailly

Laventie

LILLE

CASSEL

6 Cav. Div.

III CORPS

10 October

ST. OMER

canal

HAZEBROUCK

10 October

Morbecque

6 Cav. Div.

2 Cav. Div.

AIRE

4 Cav. Div.

10 October

MERVILLE

4 Cav. Div.

canal

10 October

5 Cav. Div.

10 October

5 Cav. Div.

Lys

Neuve Chapelle

7 Cav. Div. 9 October

Haute Deule Canal

LA BASSÉE

BÉTHUNE

from Abbeville

**BRITISH EXPEDITIONARY FORCE**

*(arriving from the Aisne)*

II CORPS 10 October

3 Div.

Pernes

5 Div.

1 Cav. Div.

Houdain

Conneau's Cavalry Corps 10 October

0 5 Miles

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*With the Aisne line stabilized (roughly east-west), a series of outflanking movements (north-south) commenced between the French and German armies, progressing towards the sea. The Belgian Army was positioned behind the Yser (roughly from Nieuport to just north of Ypres), and the British Expeditionary Force was secretly withdrawn from the Aisne position to cover the Flanders area (Ypres, Armentières, La Bassée, etc.). With British reinforcements arriving from England, this was the commencement of the rigid Allied-German front which settled into trench warfare operations.*



## THE 'RACE TO THE SEA'

**KEY**

- Belgian Army.
- French movements.
- British movements.
- German movements.

NORTH SEA

GERMAN ADVANCE FROM ANTWERP

BELGIAN ARMY

Dunkirk

Dixmude

Calais

The Channel Ports [GERMAN OBJECTIVES]

Ypres

Menin

III Corps B.E.F.

8 Oct.

7 Oct.

St.Omer

I Corps B.E.F.

Armentières

30 Oct.

Boulogne

ENGLISH CHANNEL

Hazebrouck

La Bassée

Cavalry 8 Oct.

Béthune

8 Oct.

III Corps and later I Corps B.E.F.

II Corps B.E.F.

Lens

Valenciennes

8 Oct.

7 Oct.

Arras

10 Oct.

SIXTH ARMY

Cambrai

1-5 Oct.

TENTH ARMY

27 Sept.

26 Sept.

24 Sept.

Abbeville

Somme

Albert

Péronne

28 Sept.

Ancre

St. Quentin

Amiens

SECOND ARMY

24 Sept.

Oise

22 Sept.

ARMY

23 Sept.

18 Sept.

SEVENTH ARMY

Craonne

FIRST ARMY

17 Sept.

Oise

SIXTH ARMY

Aisne

Compiègne

2-15 Oct.

0 25 Miles

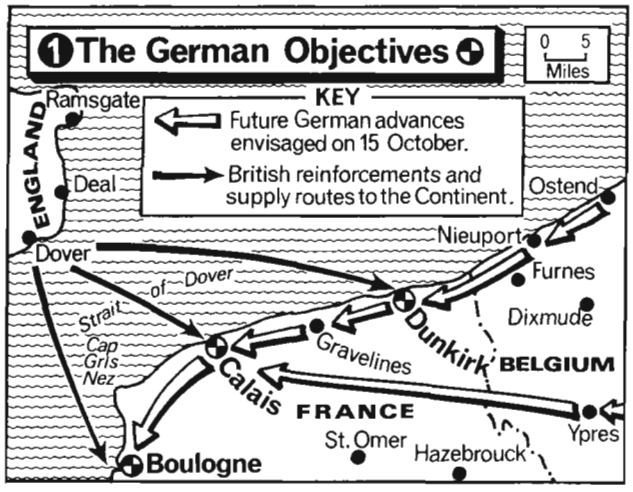
*I, II & III Corps B.E.F. en route to Flanders.*

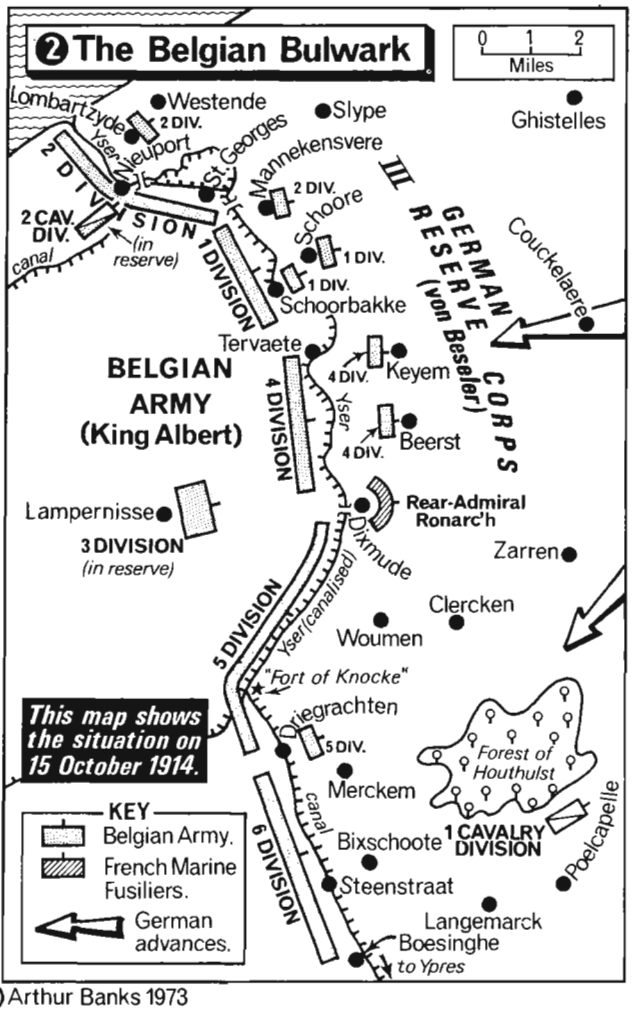
**KEY TO GERMAN MOVEMENTS**

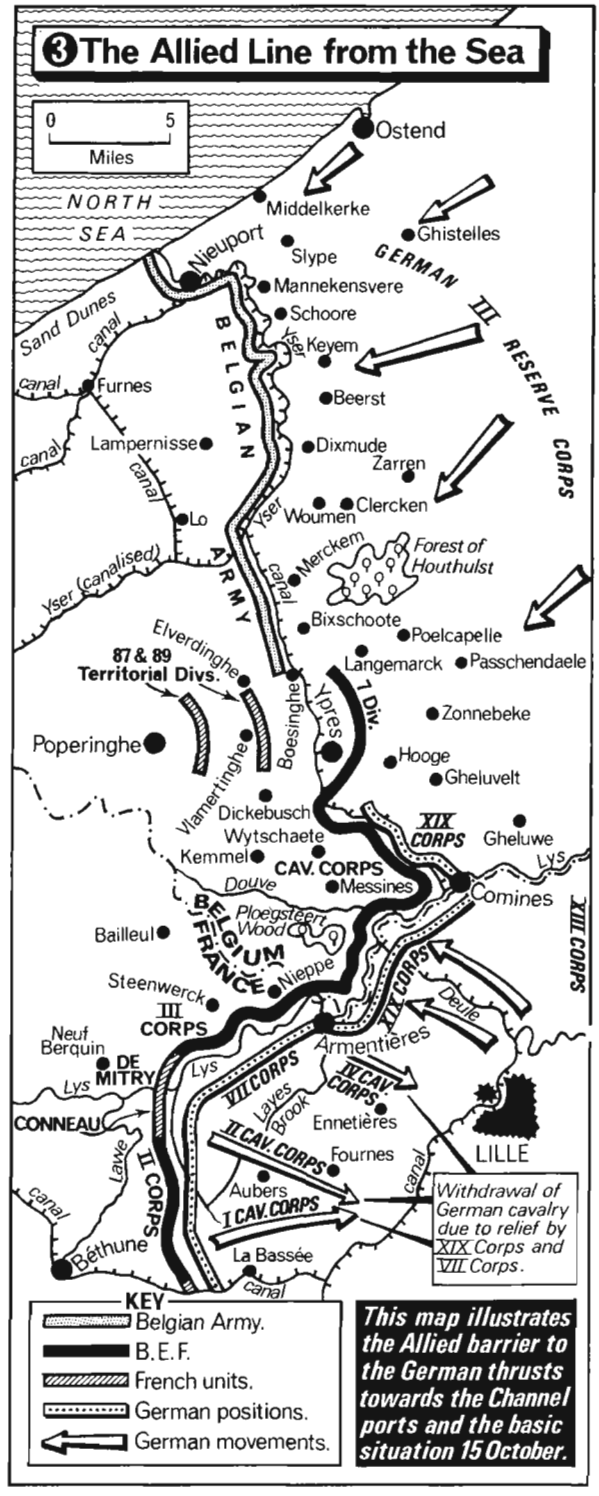
1. IV Cavalry Corps.
2. I & II Cavalry Corps.
3. XIV Corps (from Metz).
4. I Bav. Res. Corps (from Metz).
5. IV Corps (from Soissons).
6. Guard Corps (from Rheims).
7. XIV Res. Corps (from Alsace-Lorraine).
8. II Bav. Corps (from Metz).
9. XXI Corps (from Lunéville).
10. I Bav. Corps (from Glonville).
11. XVIII Corps (from Rheims).
12. IX Res. Corps (from Antwerp).

# DEFENCE OF THE CHANNEL PORTS AUTUMN 1914

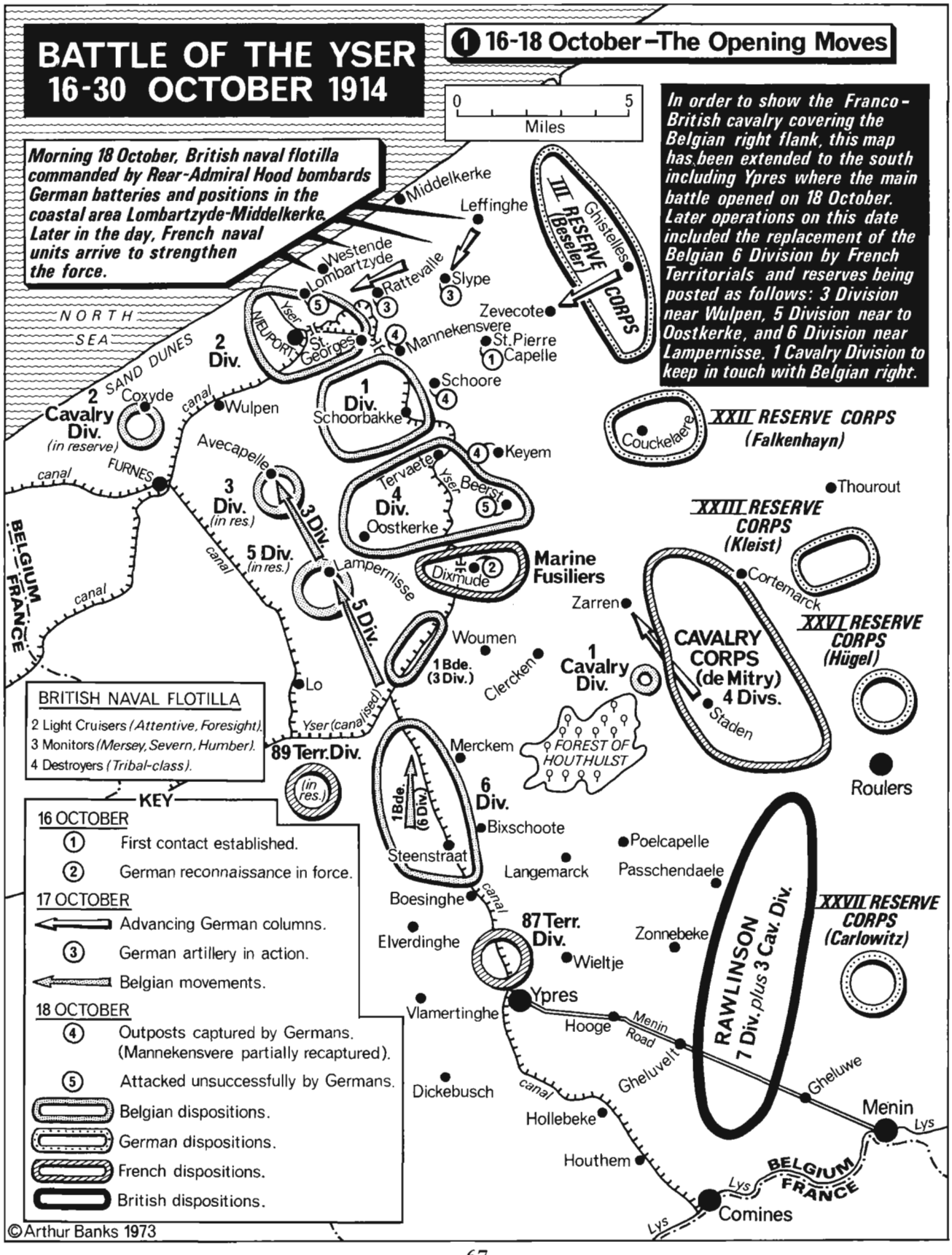
*With Antwerp and also Ostend behind them, the German aim was to sever the sea link with England.*



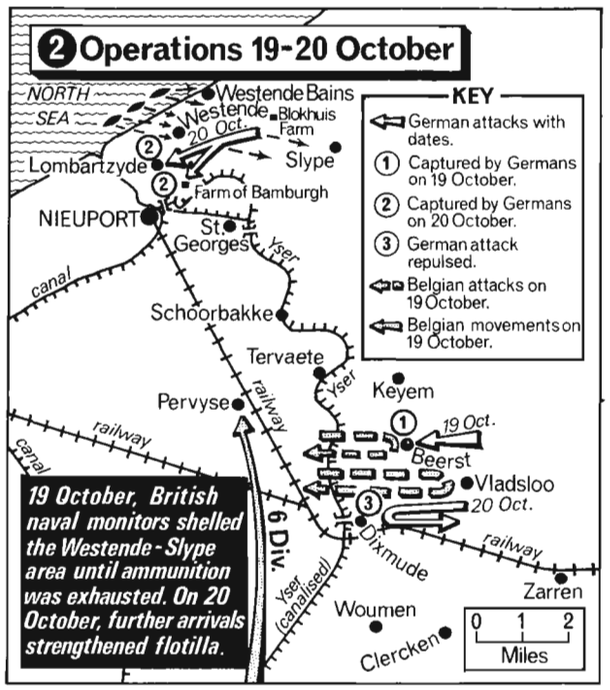




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BATTLE OF THE YSER
16-30 OCTOBER 1914
1 16-18 October–The Opening Moves
0
5
Miles
Morning 18 October, British naval flotilla commanded by Rear-Admiral Hood bombards German batteries and positions in the coastal area Lombartzyde-Middelkerke. Later in the day, French naval units arrive to strengthen the force.
In order to show the Franco-British cavalry covering the Belgian right flank, this map has been extended to the south including Ypres where the main battle opened on 18 October. Later operations on this date included the replacement of the Belgian 6 Division by French Territorials and reserves being posted as follows: 3 Division near Wulpen, 5 Division near to Oostkerke, and 6 Division near Lampernisse. 1 Cavalry Division to keep in touch with Belgian right.
NORTH SEA
SAND DUNES
BELGIUM
FRANCE
Middelkerke
Leffinghe
Westende
Lombartzyde
Rattevalle
Slype
Zevecote
Ghistelles
III RESERVE (Beseler) CORPS
Yser
NIEUPORT
St. Georges
Mannekensvere
St. Pierre Capelle
2 Div.
2 Cavalry Div. (in reserve)
Coxyde
canal
Wulpen
1 Div. Schoorbakke
Schoore
Keyem
XXII RESERVE CORPS (Falkenhayn)
Couckelaere
Avecapelle
FURNES
Tervaete
Yser
Beerst
4 Div. Oostkerke
Thourout
XXIII RESERVE CORPS (Kleist)
3 Div. (in res.)
3 Div.
5 Div. (in res.)
Lampernisse
5 Div.
Dixmude
Marine Fusiliers
Cortemarck
Zarren
XXVI RESERVE CORPS (Hügel)
Woumen
1 Bde. (3 Div.)
Clercken
1 Cavalry Div.
CAVALRY CORPS (de Mitry) 4 Divs.
Staden
Lo
Yser (canalised)
FOREST OF HOUTHULST
Roulers
89 Terr. Div.
(in res.)
Merckem
1 Bde. (6 Div.)
6 Div.
Bixschoote
Steenstraat
Poelcapelle
Langemarck
Passchendaele
Boesinghe
87 Terr. Div.
Elverdinghe
Zonnebeke
XXVII RESERVE CORPS (Carlowitz)
Wieltje
RAWLINSON 7 Div. plus 3 Cav. Div.
Ypres
Vlamertinghe
Hooge
Menin Road
Gheluvelt
Gheluwe
Dickebusch
Hollebeke
Menin
Lys
Houthem
Comines
BRITISH NAVAL FLOTILLA
2 Light Cruisers (Attentive, Foresight).
3 Monitors (Mersey, Severn, Humber).
4 Destroyers (Tribal-class).
KEY
16 OCTOBER
1 First contact established.
2 German reconnaissance in force.
17 OCTOBER
Advancing German columns.
3 German artillery in action.
Belgian movements.
18 OCTOBER
4 Outposts captured by Germans. (Mannekensvere partially recaptured).
5 Attacked unsuccessfully by Germans.
Belgian dispositions.
German dispositions.
French dispositions.
British dispositions.
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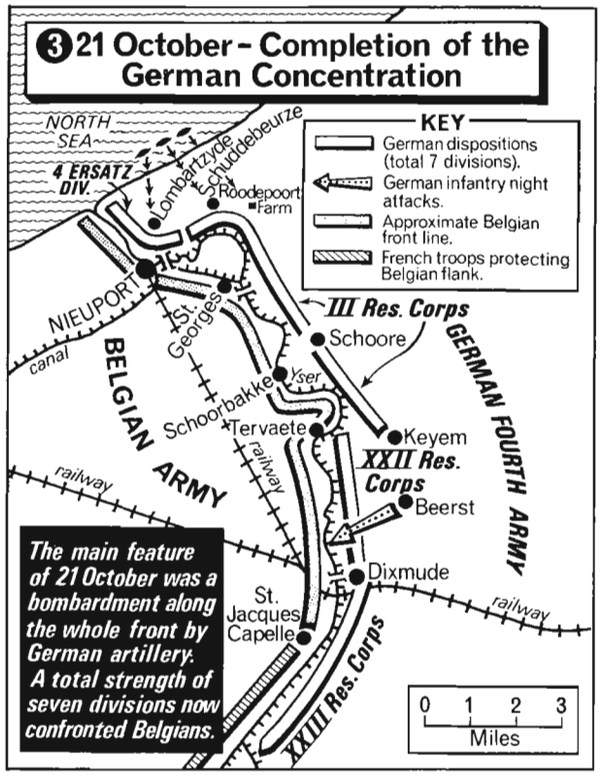
# BATTLE OF THE YSER - continued

## 2 Operations 19-20 October




***19 October, British naval monitors shelled the Westende-Slype area until ammunition was exhausted. On 20 October, further arrivals strengthened flotilla.***

## 3 21 October - Completion of the German Concentration

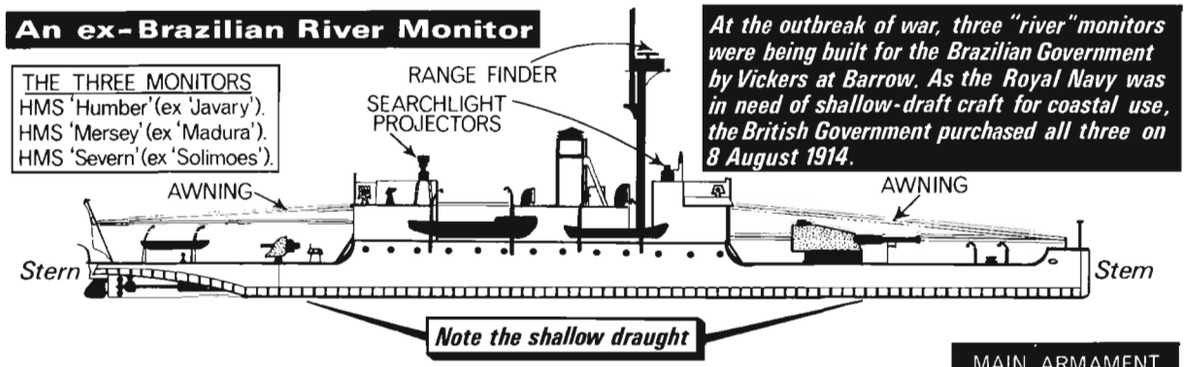



***The main feature of 21 October was a bombardment along the whole front by German artillery. A total strength of seven divisions now confronted Belgians.***

## An ex-Brazilian River Monitor

***At the outbreak of war, three "river" monitors were being built for the Brazilian Government by Vickers at Barrow. As the Royal Navy was in need of shallow-draft craft for coastal use, the British Government purchased all three on 8 August 1914.***

THE THREE MONITORS
HMS 'Humber' (ex 'Javary').
HMS 'Mersey' (ex 'Madura').
HMS 'Severn' (ex 'Solimoes').




MAIN ARMAMENT
Two 6-inch guns
Two 4·7-inch howitzers
Four 3-pounders

Length: 267 feet. Beam: 49 feet. Draught: 5 feet 9 inches. Displacement: 1,260 tons. Complement: 100. Max. speed: 12 knots.

## 4 Naval Operations: Evening 21 October - Morning 31 October

COMPOSITION OF ALLIED FLOTILLA ON 24 OCTOBER

| | |
|---|---|
| Monitors: | 'Mersey' and 'Humber' ('Severn' sent home). |
| Gunboat: | 'Bustard'. |
| Cruisers: | 'Brilliant' and 'Sirius'. |
| Sloops: | 'Rinaldo' and 'Wildfire'. |
| Destroyers: | 8 British and 5 French. |

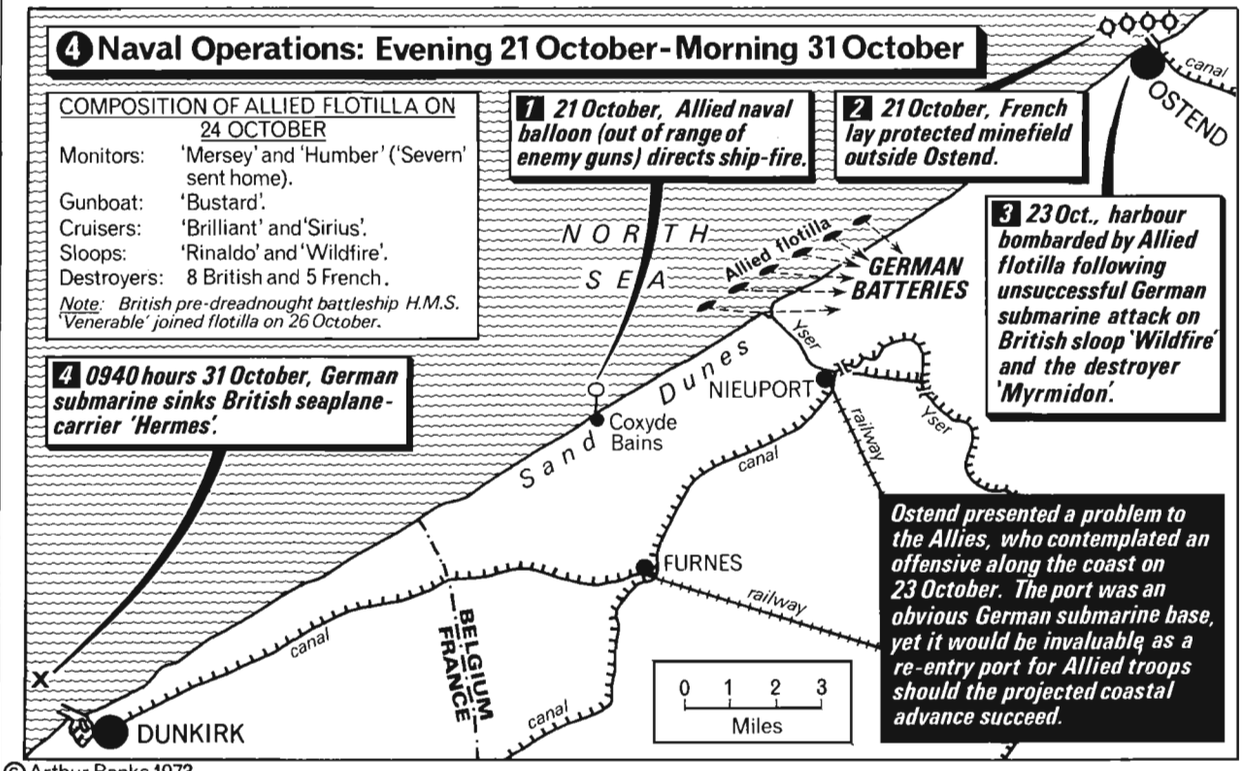
*Note: British pre-dreadnought battleship H.M.S. 'Venerable' joined flotilla on 26 October.*

***1 21 October, Allied naval balloon (out of range of enemy guns) directs ship-fire.***

***2 21 October, French lay protected minefield outside Ostend.***

***3 23 Oct., harbour bombarded by Allied flotilla following unsuccessful German submarine attack on British sloop 'Wildfire' and the destroyer 'Myrmidon'.***

***4 0940 hours 31 October, German submarine sinks British seaplane-carrier 'Hermes'.***

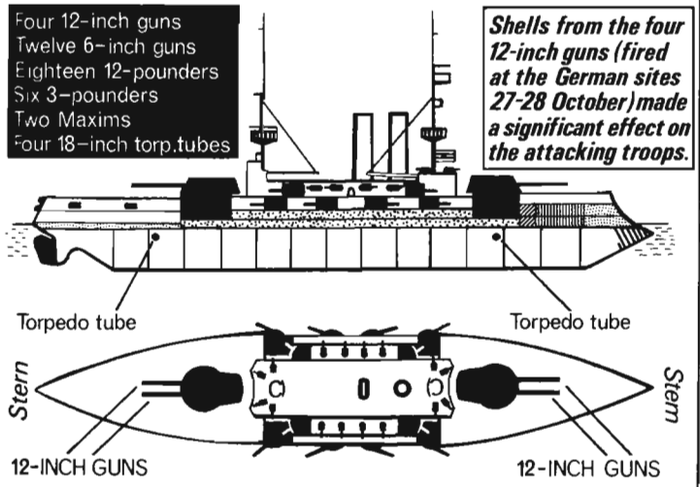



***Ostend presented a problem to the Allies, who contemplated an offensive along the coast on 23 October. The port was an obvious German submarine base, yet it would be invaluable as a re-entry port for Allied troops should the projected coastal advance succeed.***

## HMS "VENERABLE" "London" Class of three ships

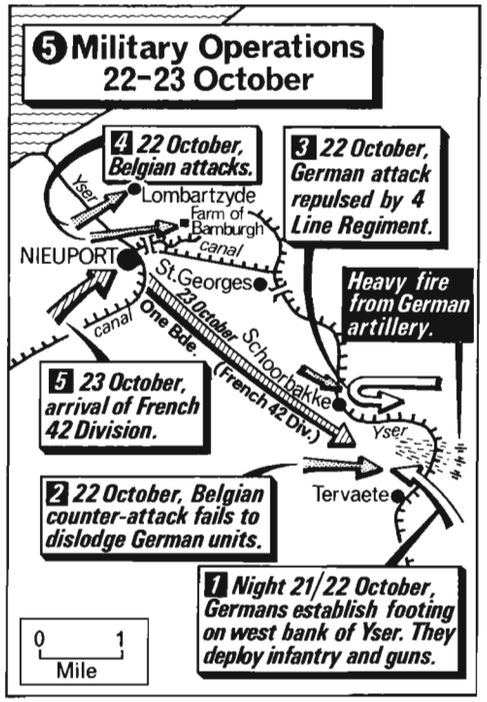
Four 12-inch guns
Twelve 6-inch guns
Eighteen 12-pounders
Six 3-pounders
Two Maxims
Four 18-inch torp.tubes

***Shells from the four 12-inch guns (fired at the German sites 27-28 October) made a significant effect on the attacking troops.***




| | | | | | |
|---|---|---|---|---|---|
| Laid down: | 1899 | Waterline length: | 411 feet | Displace.: | 15,000 tons |
| Completed: | 1902 | Over all length: | 430 feet | Draught: | 29 feet |
| Complement: | 750 | Maximum speed: | 18·5 knots | Beam: | 75 feet |

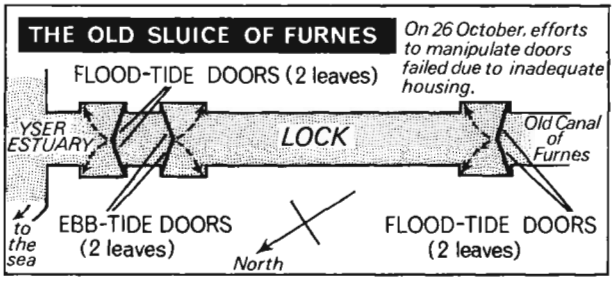
## 5 Military Operations 22-23 October

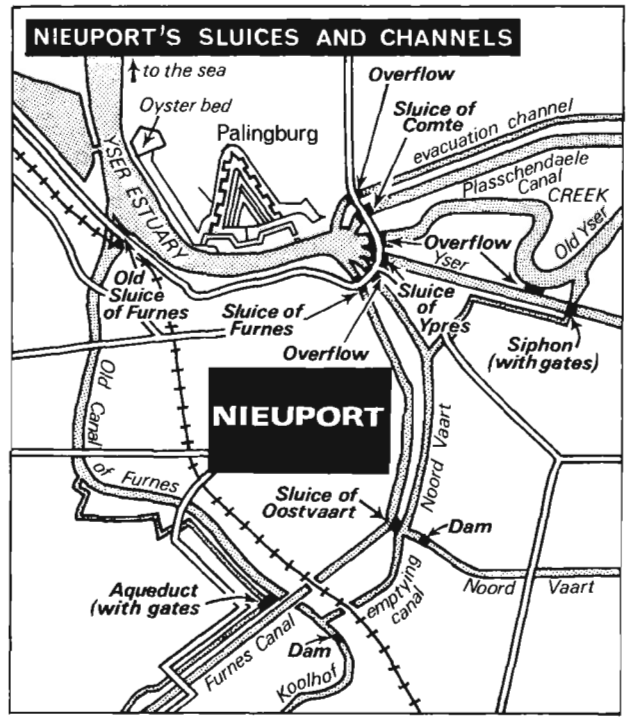


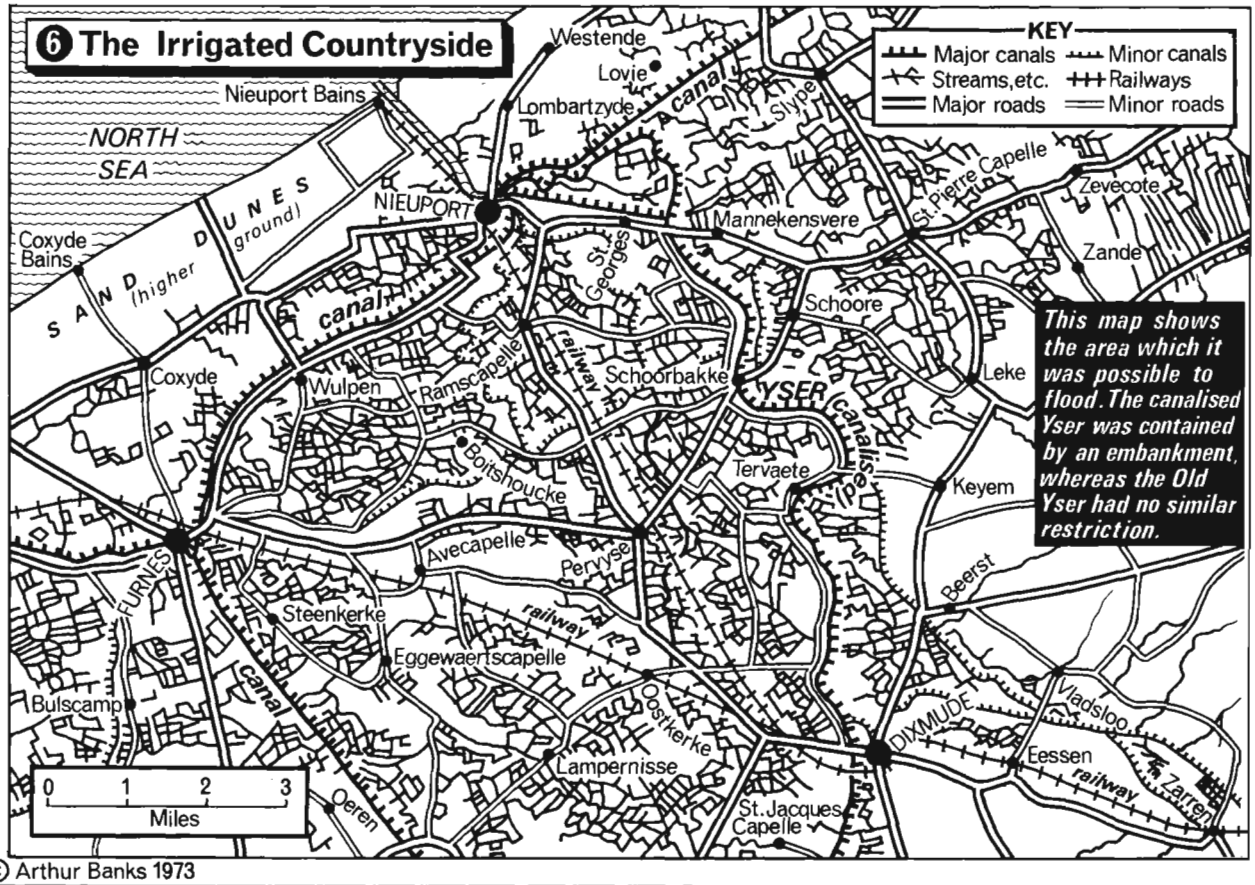

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# BATTLE OF THE YSER-continued

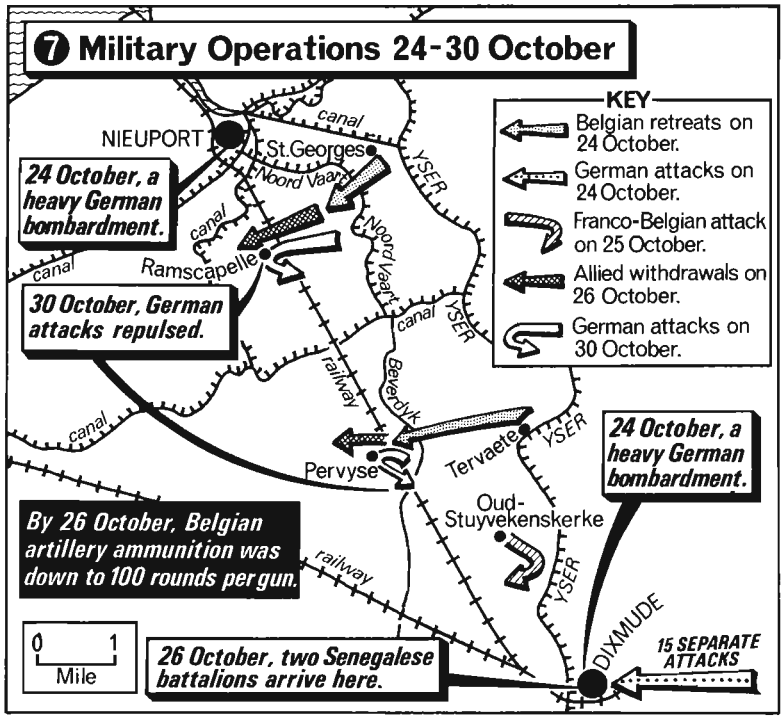
*By 24 October, Belgian resistance was deteriorating due to exhaustion of troops, lack of ammunition, and only a few reinforcements arriving (French 42 Division). However, as the whole area was intersected by canals and ditches, a possibility existed of flooding the countryside to a depth sufficient to render the attacking Germans unoperational. Stated briefly, this entailed damming 22 culverts under the Nieuport - Dixmude railway embankment to contain the rising waters in the east, followed by opening the Nieuport sluices to admit the sea. This manœuvre was accomplished successfully and by 30 October the drive by the Germans along the coast was virtually at an end.*




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## BELGIAN ENGINEERING OPERATIONS AT NIEUPORT

The operational procedures were extremely complex, depending for success upon tides from the North Sea being propitious, force and direction of winds being correct, plus the actual manipulation of sluice gates being feasible. At the old sluice of Furnes, the two sets of flood-tide doors needed to be held open permanently with the one set of ebb-tide doors freed from their racks so that they opened and closed according to the water pressure from rising and receding tides. At other sluices, doors and gates required to be operated manually for each manœuvre; that is, opened at high tides and closed before low tides. *(The full moon of 29 October assisted operations by causing a very high tide).*

***21 October.*** 1100 hours, Old Yser's overflow is opened; water rapidly inundates creek; Noord Vaart-Old Yser siphon closed to avoid flooding 2 Division's established position.

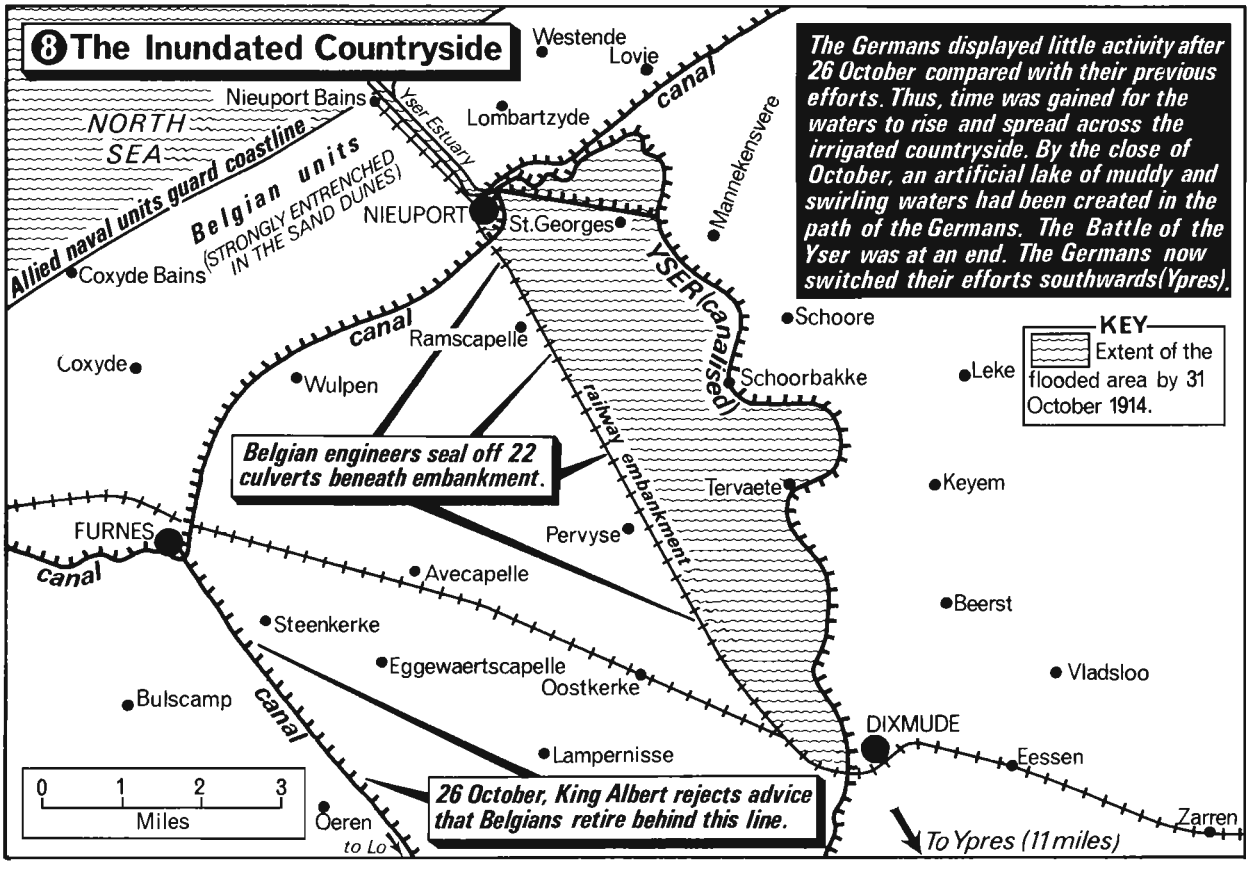
***25 October.*** Foch contemplates flooding area east of Dunkirk, but delays plan temporarily.

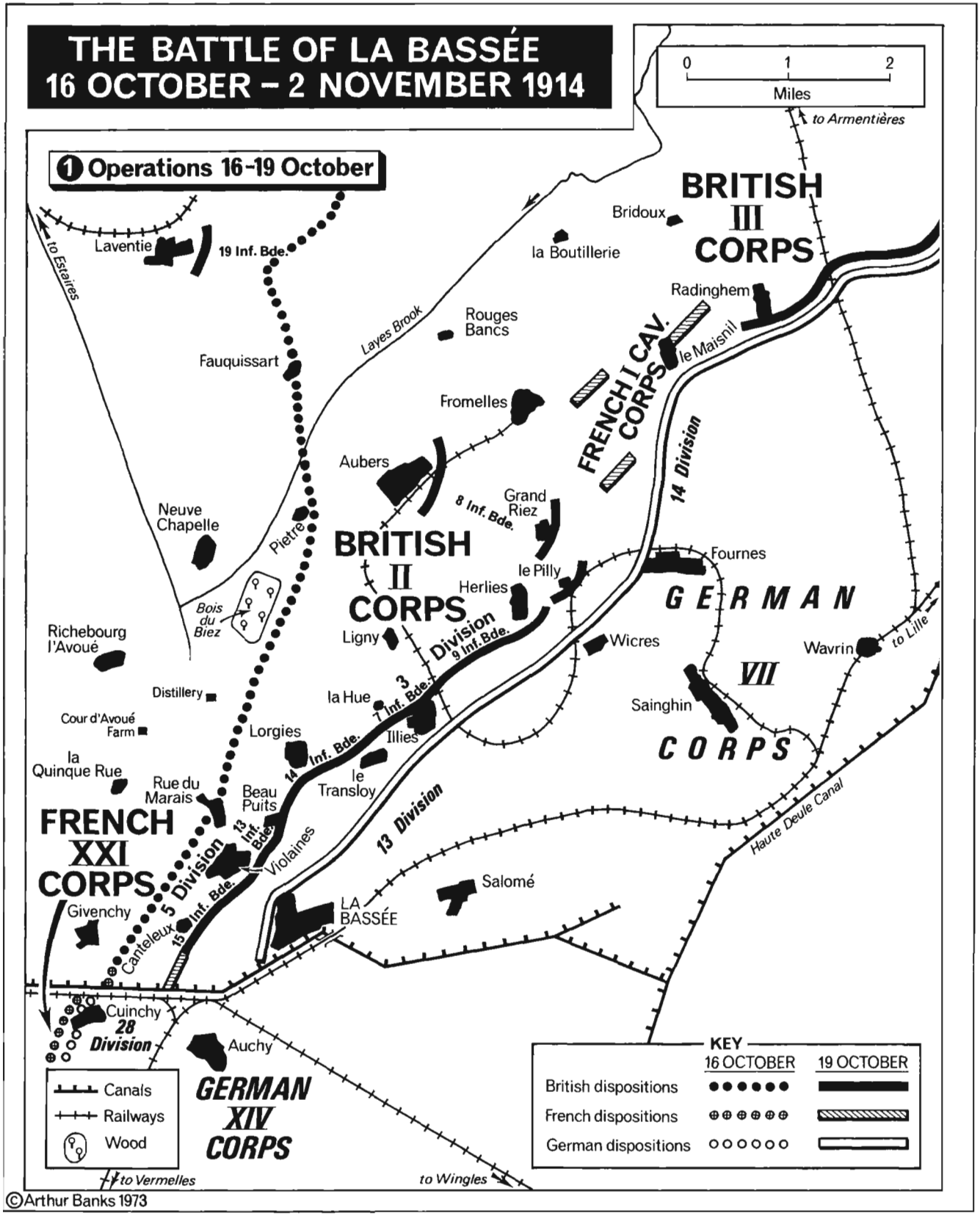
***26 October.*** Attempt fails at old sluice of Furnes.

***28 October.*** Second try succeeds; waters rise.

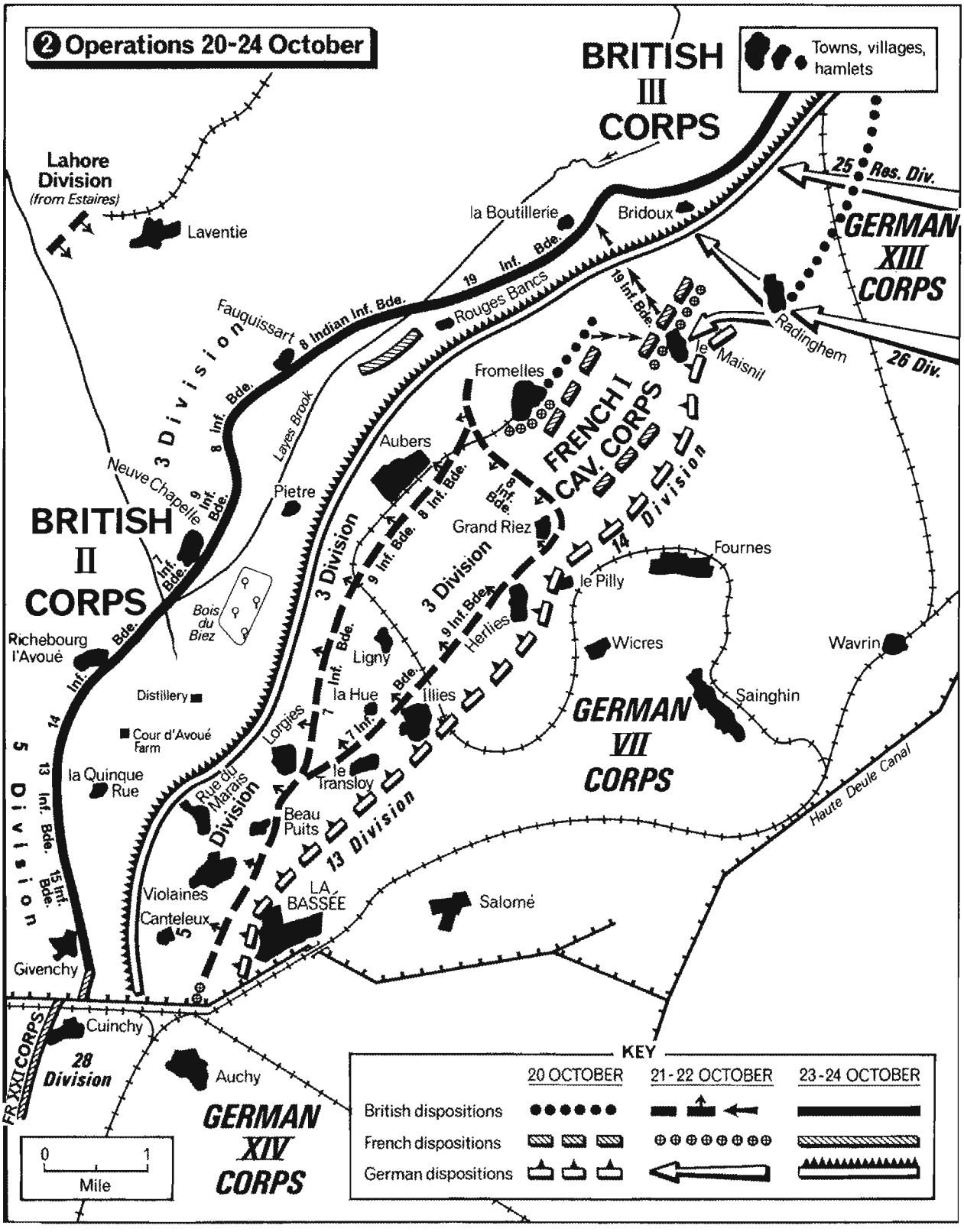
***29 October.*** 1930 hours, gates of N.Vaart opened.

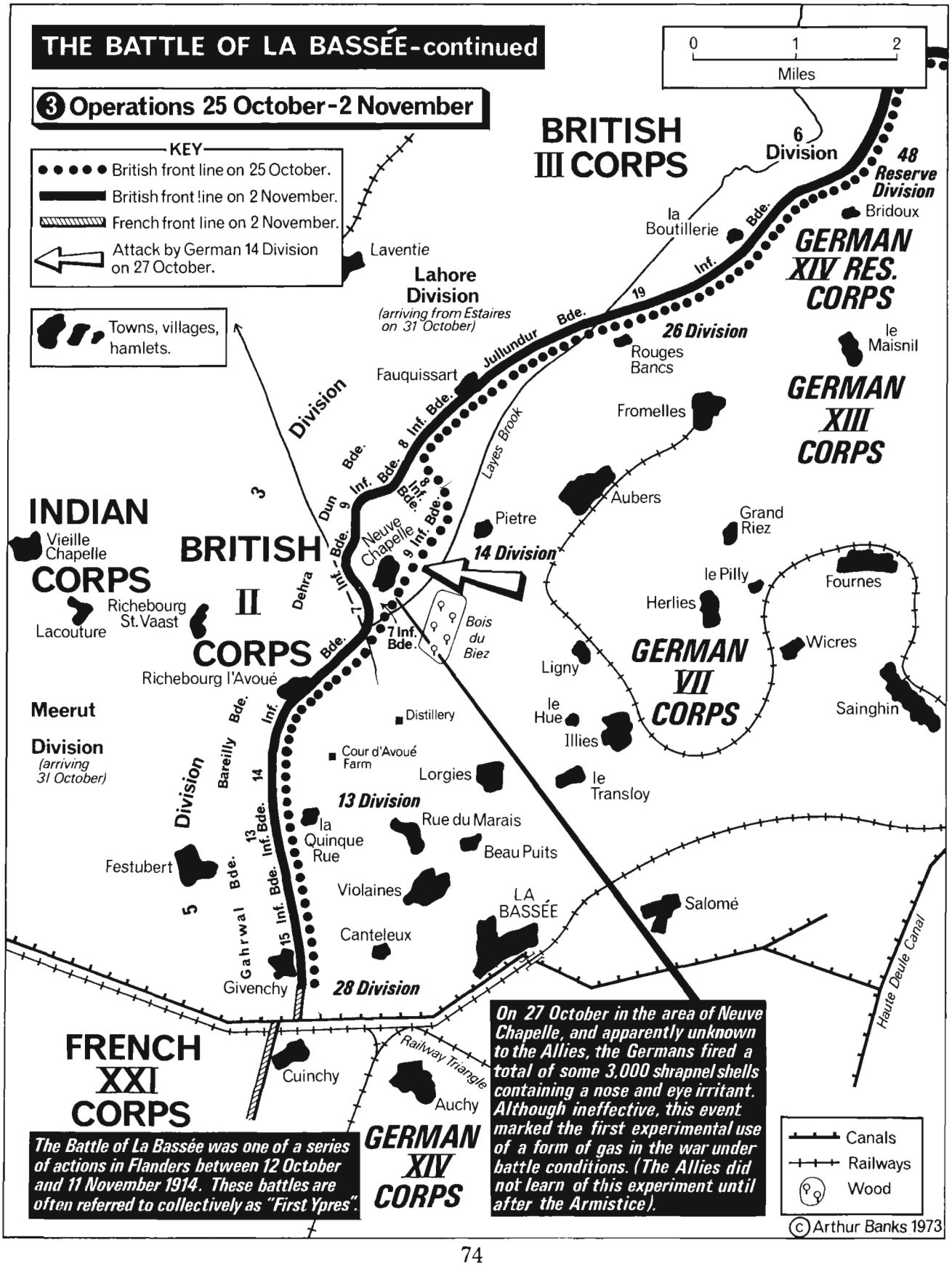
***30 October.*** Manœuvre repeated; floods spread.

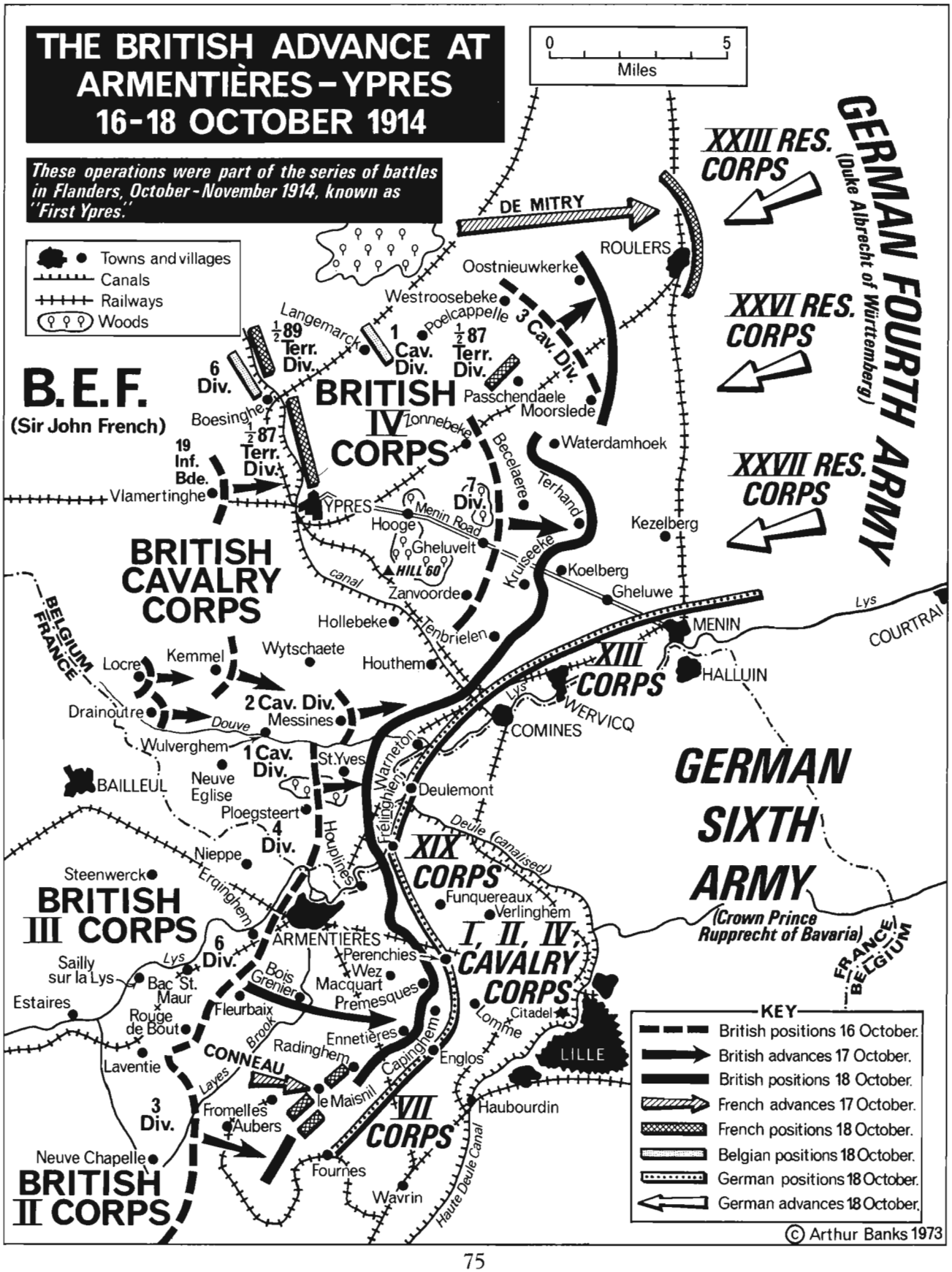




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2 Operations 20-24 October
Towns, villages, hamlets
BRITISH III CORPS
Lahore Division (from Estaires)
Laventie
la Boutillerie
Bridoux
25 Res. Div.
GERMAN XIII CORPS
19 Inf. Bde.
Fauquissart
8 Indian Inf. Bde.
Rouges Bancs
Radinghem
26 Div.
le Maisnil
Fromelles
3 Division
8 Inf. Bde.
Layes Brook
Aubers
FRENCH I CAV. CORPS
Neuve Chapelle
9 Inf. Bde.
Pietre
Grand Riez
Fournes
14 Division
BRITISH II CORPS
7 Inf. Bde.
Bois du Biez
le Pilly
Herlies
Richebourg l'Avoué
Ligny
Wicres
Wavrin
Distillery
la Hue
Illies
Sainghin
Cour d'Avoué Farm
Lorgies
GERMAN VII CORPS
la Quinque Rue
Rue du Marais
le Transloy
Haute Deule Canal
5 Division
13 Division
Beau Puits
Violaines
LA BASSÉE
Salomé
Canteleux
Givenchy
Cuinchy
FR XXI CORPS
28 Division
Auchy
GERMAN XIV CORPS
0 1 Mile
KEY
20 OCTOBER
21-22 OCTOBER
23-24 OCTOBER
British dispositions
French dispositions
German dispositions


THE BATTLE OF LA BASSÉE-continued
3 Operations 25 October-2 November
KEY
British front line on 25 October.
British front line on 2 November.
French front line on 2 November.
Attack by German 14 Division on 27 October.
Towns, villages, hamlets.
0 1 2
Miles
BRITISH III CORPS
6 Division
48 Reserve Division
la Boutillerie
Bridoux
GERMAN XIV RES. CORPS
Laventie
Lahore Division
(arriving from Estaires on 31 October)
Jullundur Bde.
19 Inf. Bde.
26 Division
Rouges Bancs
le Maisnil
GERMAN XIII CORPS
Fauquissart
Layes Brook
Fromelles
Aubers
Grand Riez
Pietre
14 Division
Neuve Chapelle
8 Inf. Bde.
9 Inf. Bde.
Dun Bde.
3 Division
INDIAN CORPS
Vieille Chapelle
Richebourg St. Vaast
Lacouture
BRITISH II CORPS
Dehra Bde.
7 Inf. Bde.
Bois du Biez
le Pilly
Herlies
Fournes
Wicres
Sainghin
GERMAN VII CORPS
Ligny
le Hue
Illies
le Transloy
Richebourg l'Avoué
Meerut Division
(arriving 31 October)
Bareilly Bde.
14 Inf.
Distillery
Cour d'Avoué Farm
Lorgies
13 Division
Rue du Marais
la Quinque Rue
Beau Puits
Festubert
13 Inf. Bde.
5 Division
Violaines
LA BASSÉE
Salomé
Canteleux
Gahrwal Bde.
15 Inf. Bde.
Givenchy
28 Division
Haute Deule Canal
FRENCH XXI CORPS
Cuinchy
Railway Triangle
Auchy
GERMAN XIV CORPS
Canals
Railways
Wood
The Battle of La Bassée was one of a series of actions in Flanders between 12 October and 11 November 1914. These battles are often referred to collectively as "First Ypres".
On 27 October in the area of Neuve Chapelle, and apparently unknown to the Allies, the Germans fired a total of some 3,000 shrapnel shells containing a nose and eye irritant. Although ineffective, this event marked the first experimental use of a form of gas in the war under battle conditions. (The Allies did not learn of this experiment until after the Armistice).
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THE BRITISH ADVANCE AT ARMENTIÈRES – YPRES 16–18 OCTOBER 1914
These operations were part of the series of battles in Flanders, October - November 1914, known as "First Ypres."
0
5
Miles
Towns and villages
Canals
Railways
Woods
B.E.F.
(Sir John French)
BRITISH IV CORPS
BRITISH CAVALRY CORPS
BRITISH III CORPS
BRITISH II CORPS
BRITISH I CORPS
BRITISH V CORPS
GERMAN FOURTH ARMY
(Duke Albrecht of Württemberg)
GERMAN SIXTH ARMY
(Crown Prince Rupprecht of Bavaria)
XXIII RES. CORPS
XXVI RES. CORPS
XXVII RES. CORPS
XIII CORPS
XIX CORPS
I, II, IV CAVALRY CORPS
VII CORPS
6 Div.
3 Div.
4 Div.
7 Div.
1 Cav. Div.
2 Cav. Div.
3 Cav. Div.
19 Inf. Bde.
½ 89 Terr. Div.
½ 87 Terr. Div.
½ 87 Terr. Div.
DE MITRY
ROULERS
Oostnieuwkerke
Westroosebeke
Poelcappelle
Langemarck
Passchendaele
Moorslede
Zonnebeke
Becelaere
Waterdamhoek
Terhand
Kezelberg
Boesinghe
Vlamertinghe
YPRES
Menin Road
Hooge
Gheluvelt
HILL 60
Zanvoorde
Kruiseeke
Koelberg
Gheluwe
Hollebeke
Tenbrielen
MENIN
Lys
COURTRAI
HALLUIN
WERVICQ
COMINES
Houthem
Wytschaete
Kemmel
Locre
Drainoutre
Douve
Messines
Wulverghem
St.Yves
Warneton
Frélinghien
Deulemont
Deule (canalised)
BAILLEUL
Neuve Eglise
Ploegsteert
Houplines
Nieppe
Erquinghem
Steenwerck
Funquereaux
Verlinghem
ARMENTIÈRES
Perenchies
Wez Macquart
Premesques
Bois Grenier
Fleurbaix
Brook
Sailly sur la Lys
Bac St. Maur
Estaires
Rouge de Bout
Laventie
Lys
Layes
CONNEAU
Radinghem
Ennetières
Capinghem
Englos
Lomme
Citadel
LILLE
Haubourdin
le Maisnil
Fromelles
Aubers
Neuve Chapelle
Fournes
Wavrin
Haute Deule Canal
FRANCE
BELGIUM
BELGIUM
FRANCE
KEY
British positions 16 October.
British advances 17 October.
British positions 18 October.
French advances 17 October.
French positions 18 October.
Belgian positions 18 October.
German positions 18 October.
German advances 18 October.
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# THE BATTLE OF ARMENTIÈRES
## 19 OCTOBER–2 NOVEMBER 1914

**KEY**
- British positions 19-20 October.
- British positions 21-22 October.
- British front line on 2 November.
- French positions (Conneau) on 19 October.
- French positions 22-24 October, with dates.
- German attacks 19-20 October.
- German attacks 21 October.
- German attacks 22-29 October, with dates.

0 1 2 Miles

*These operations formed part of the series of battles fought in Flanders in 1914 known as "First Ypres."*

**B. E. F.**
**(Sir John French)**

**BRITISH III CORPS**
**(Pulteney)**

**BRITISH II CORPS**
**(Smith-Dorrien)**

**GERMAN XIX CORPS**
***(Laffert)***

**GERMAN XIV RES. CORPS**
***(Loden)***

**GERMAN VII CORPS**
***(Claer)***

**GERMAN XIII CORPS**
***(Fabeck)***

**GERMAN SIXTH ARMY**
***(Crown Prince Rupprecht of Bavaria)***

BELGIUM
FRANCE

to Comines & Menin
to Comines
to Bailleul
to Aire
to Fournes
to La Bassée

40 Division
4 Division
24 Division
26 Division
14 Division
3 Division
6 Division
Lahore Division
25 Reserve Division
48 Res. Div.

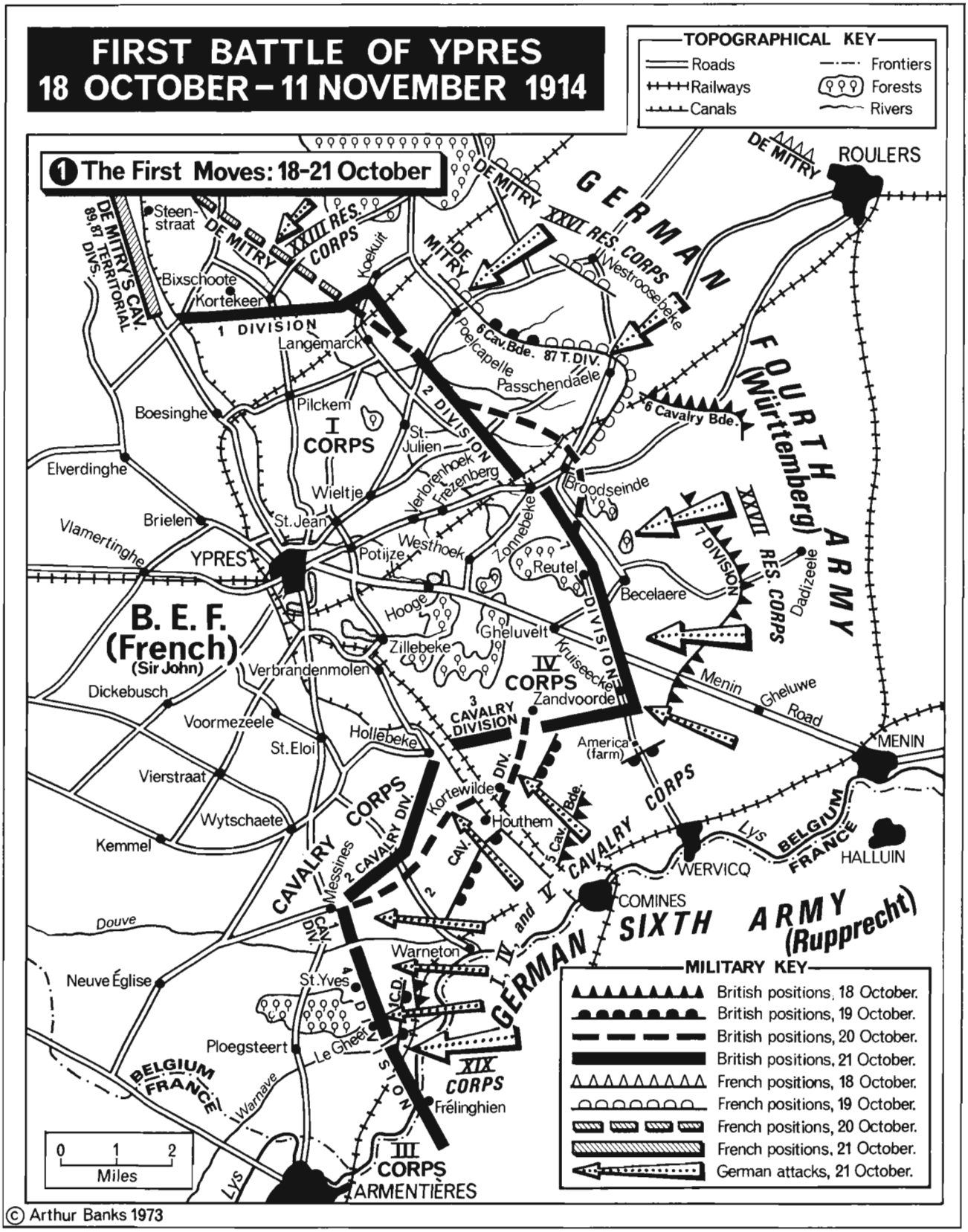
Nieppe
le Bizet
Pont de Nieppe
Frélinghien
le Ruage
Houplines
ARMENTIÈRES
Lys
Deule (canalised)
Fort de Bondues
Fort Carnot
Funquereau
Verlinghem
Epinette
Chapelle d'Armentières
Erquinghem
Perenchies
Wez Macquart
SENARMONT BATTERY
Premesques
Paradis
Mont de Premesques
Capinghem
Lomme
Citadel
LILLE
*Occupied by Germans on 12 October*
Loos
Haubourdin
Bac St. Maur
Sailly sur la Lys
Estaires
Fleurbaix
Croix Maréchal
Bois Grenier
Rue du Bois
Touquet
le Touquet
le Quesne
Ennetières
la Vallée
Fort d'Englos
Englos
Rouge de Bout
Laventie
la Boutillerie
Bridoux
Layes Brook
Bacquart
Radinghem
Escobecques
Erquinghem le Sec
le Maisnil
Beaucamps
Rouges Bancs
Fromelles
Aubers
Pietre
Neuve Chapelle
Grand Riez
Bas Flandre
Fauquissart
Jullundur
Haute Deule Canal

20 Oct.
22-24 Oct.
23-24 Oct.
22-23 Oct.
23 Oct.
27 Oct.
29 Oct.
19 Oct.

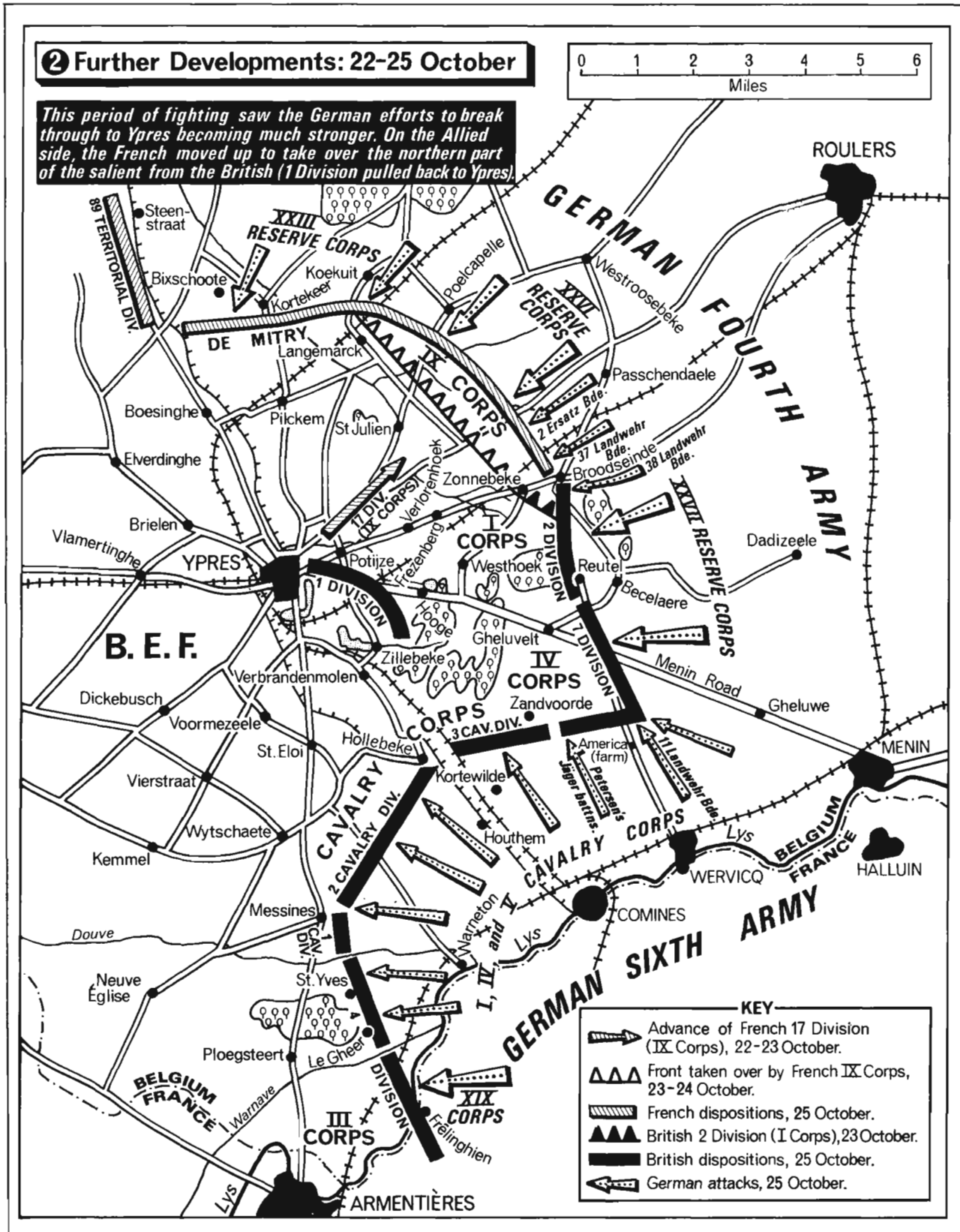
*The main area of operations during this period was more to the north where the Germans were attacking in great strength near Ypres. However, at this time, important actions took place at Armentières and La Bassée, influencing moves and dispositions in the Ypres area. This map is intended to illustrate operations to the west of the "open town" of Lille, virtually undefended.*

Towns, villages, hamlets — Bridges — Railways — Canals

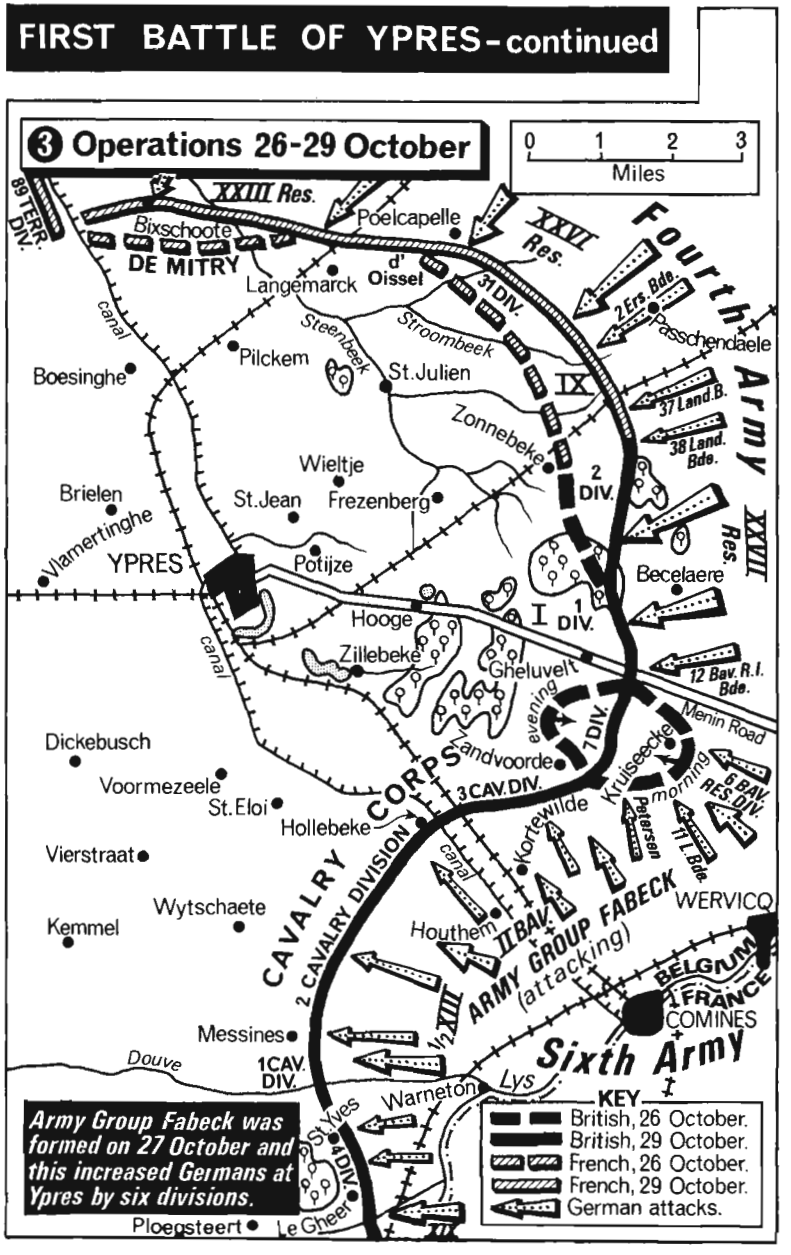
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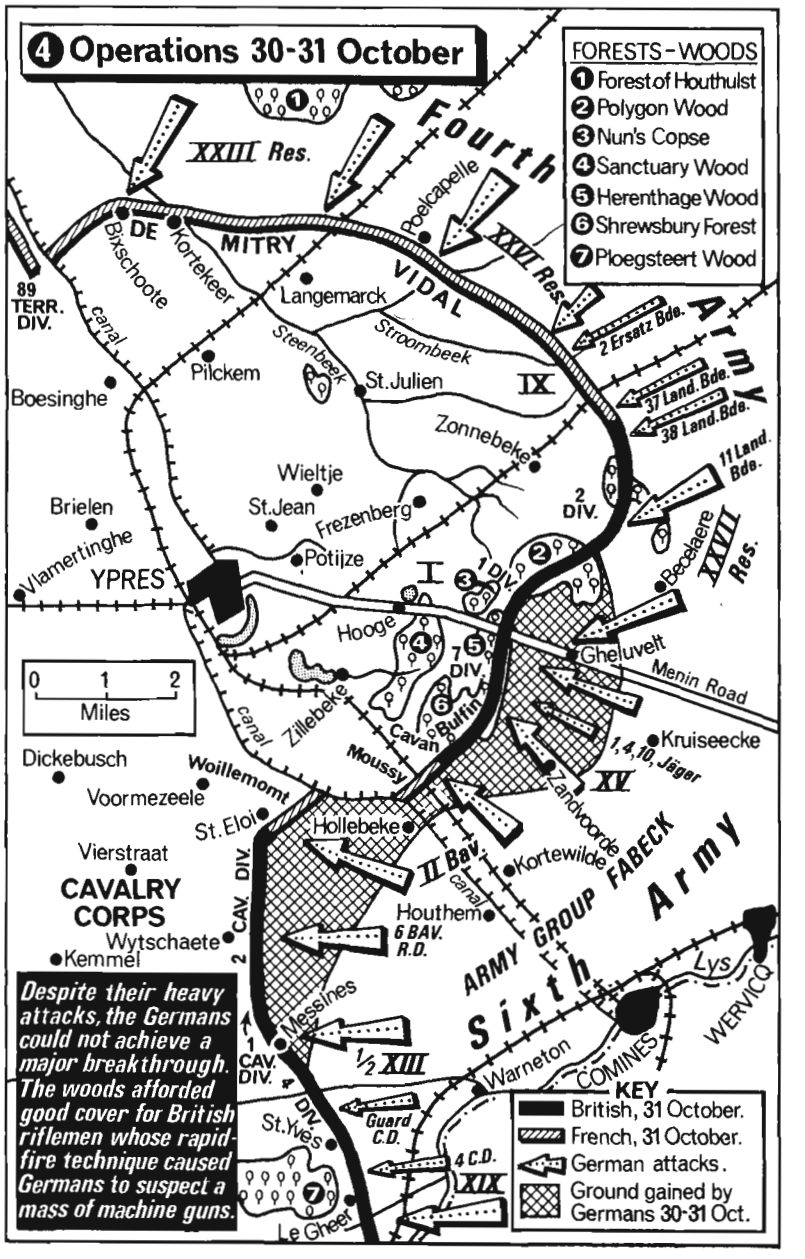


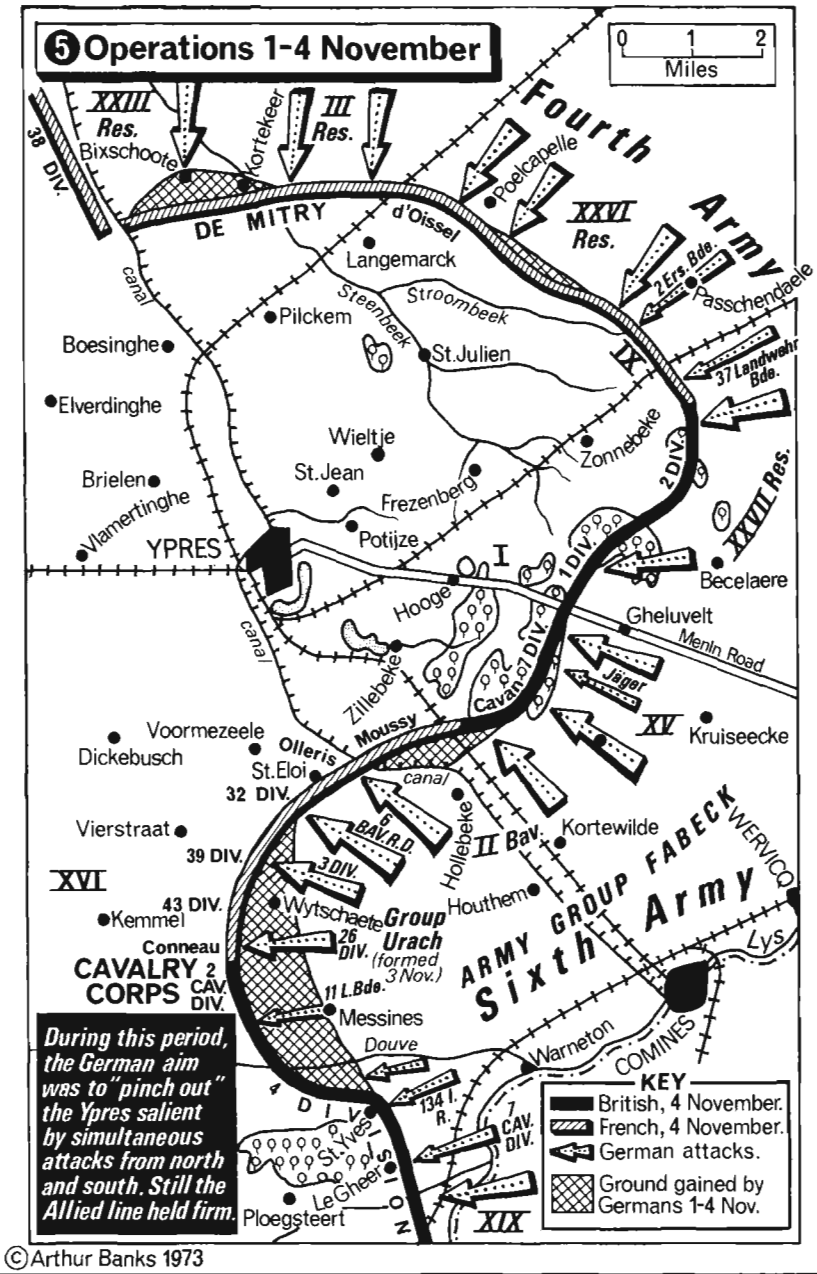

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2 Further Developments: 22-25 October
This period of fighting saw the German efforts to break through to Ypres becoming much stronger. On the Allied side, the French moved up to take over the northern part of the salient from the British (1 Division pulled back to Ypres).
0 1 2 3 4 5 6
Miles
ROULERS
GERMAN FOURTH ARMY
89 TERRITORIAL DIV.
Steenstraat
XXIII RESERVE CORPS
Bixschoote
Koekuit
Kortekeer
Poelcapelle
XXII RESERVE CORPS
Westroosebeke
DE MITRY
Langemarck
IX CORPS
Passchendaele
2 Ersatz Bde.
37 Landwehr Bde.
38 Landwehr Bde.
Boesinghe
Pilckem
St Julien
Elverdinghe
Zonnebeke
Broodseinde
Verlorenhoek
17 DIV. (IX CORPS)
XXVII RESERVE CORPS
Brielen
Vlamertinghe
YPRES
I CORPS
2 DIVISION
Potijze
Frezenberg
Westhoek
Reutel
Dadizeele
1 DIVISION
Hooge
Becelaere
B. E. F.
Gheluvelt
7 DIVISION
Zillebeke
IV CORPS
Menin Road
Gheluwe
Verbrandenmolen
Dickebusch
Zandvoorde
Voormezeele
3 CAV. DIV.
Hollebeke
MENIN
St. Eloi
America (farm)
Vierstraat
Kortewilde
Peterson's Jäger batlns.
11 Landwehr Bde.
CAVALRY CORPS
Wytschaete
Houthem
Lys
BELGIUM
FRANCE
Kemmel
2 CAVALRY DIV.
WERVICQ
HALLUIN
Messines
Warneton
I, IV and V CORPS
COMINES
Douve
1 CAV. DIV.
Lys
GERMAN SIXTH ARMY
Neuve Église
St. Yves
4
Ploegsteert
Le Gheer
BELGIUM
FRANCE
Warnave
XIX CORPS
DIVISION
III CORPS
Frélinghien
Lys
ARMENTIÈRES
KEY
Advance of French 17 Division (IX Corps), 22-23 October.
Front taken over by French IX Corps, 23-24 October.
French dispositions, 25 October.
British 2 Division (I Corps), 23 October.
British dispositions, 25 October.
German attacks, 25 October.

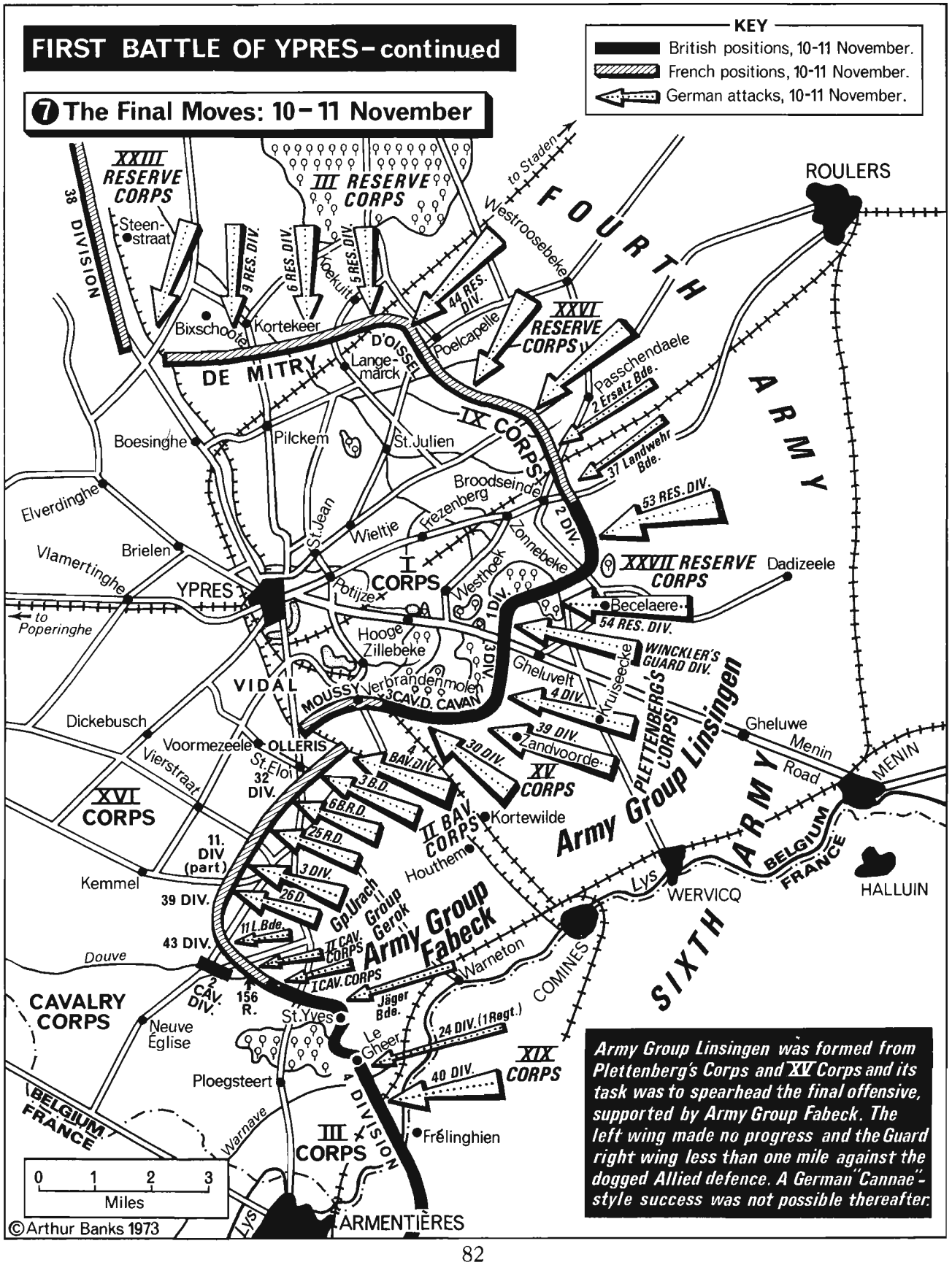
# FIRST BATTLE OF YPRES - continued



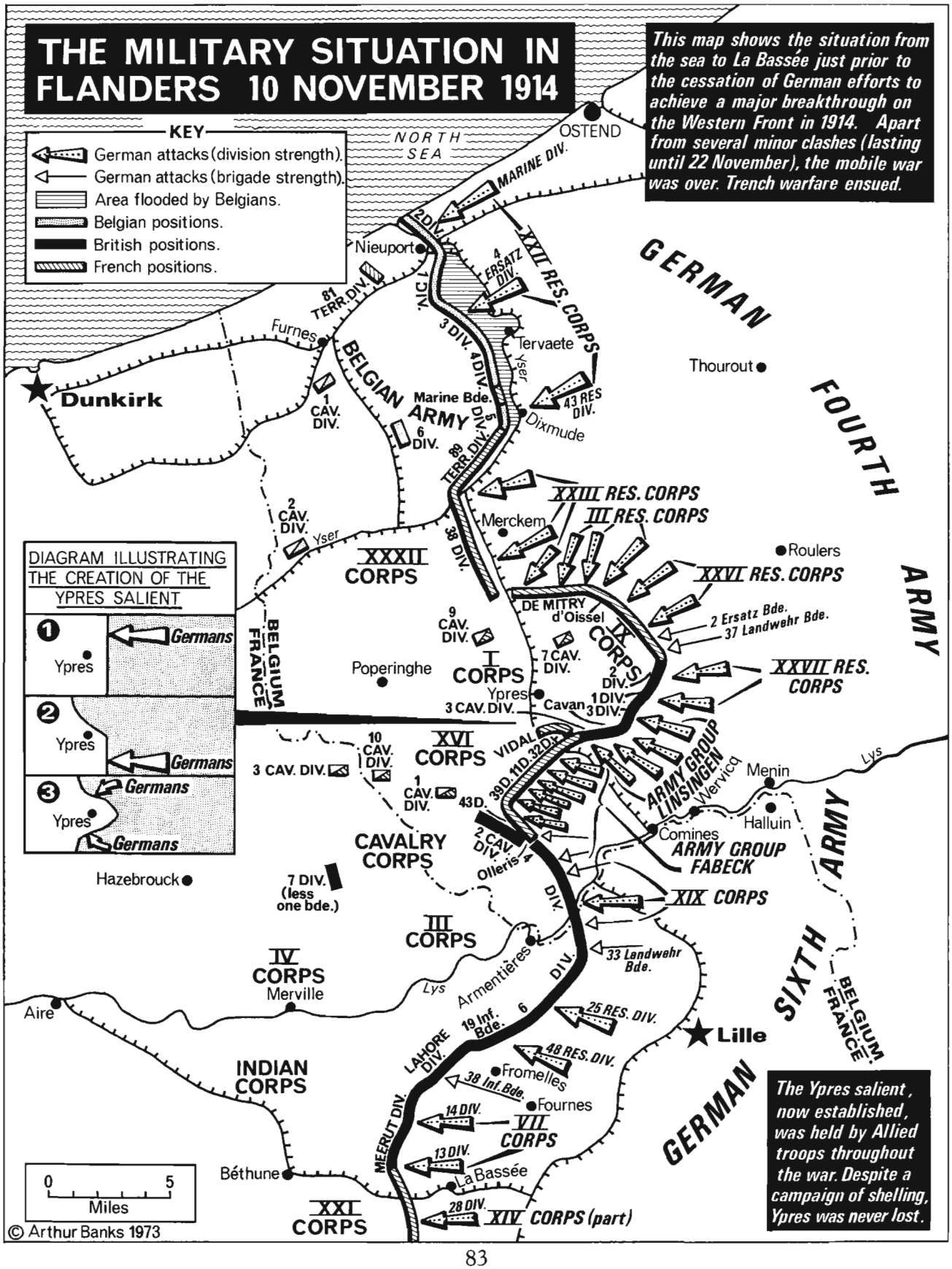



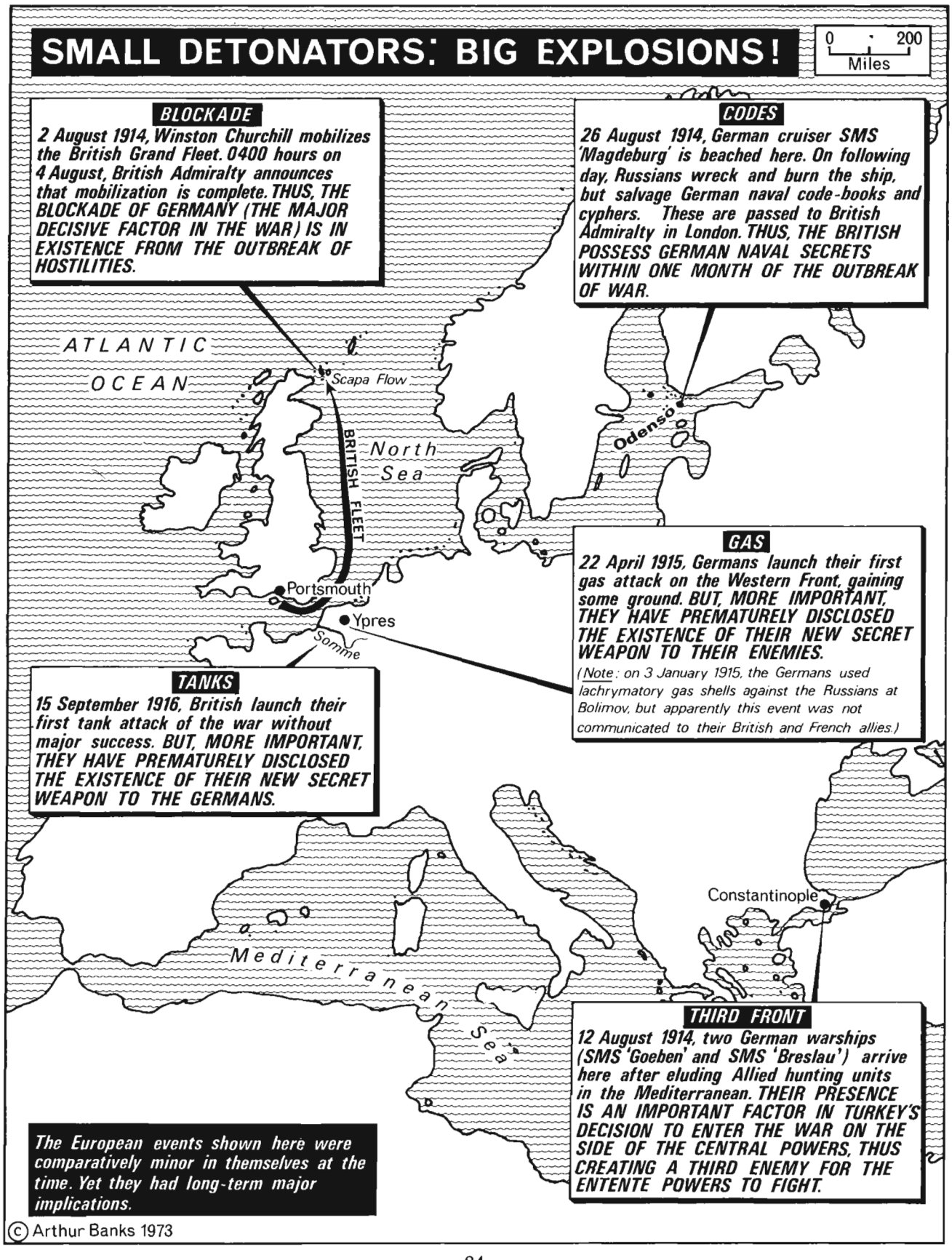



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*Army Group Linsingen was formed from Plettenberg's Corps and XV Corps and its task was to spearhead the final offensive, supported by Army Group Fabeck. The left wing made no progress and the Guard right wing less than one mile against the dogged Allied defence. A German "Cannae"-style success was not possible thereafter.*


THE MILITARY SITUATION IN FLANDERS 10 NOVEMBER 1914
This map shows the situation from the sea to La Bassée just prior to the cessation of German efforts to achieve a major breakthrough on the Western Front in 1914. Apart from several minor clashes (lasting until 22 November), the mobile war was over. Trench warfare ensued.
KEY
German attacks (division strength).
German attacks (brigade strength).
Area flooded by Belgians.
Belgian positions.
British positions.
French positions.
NORTH SEA
OSTEND
MARINE DIV.
2 DIV.
Nieuport
4 ERSATZ DIV.
XXII RES. CORPS
GERMAN FOURTH ARMY
81 TERR. DIV.
Furnes
1 DIV.
3 DIV.
4 DIV.
Yser
Tervaete
Thourout
Dunkirk
1 CAV. DIV.
BELGIAN ARMY
Marine Bde.
5 DIV.
6 DIV.
89 TERR. DIV.
43 RES. DIV.
Dixmude
XXIII RES. CORPS
III RES. CORPS
Merckem
2 CAV. DIV.
Yser
38 DIV.
XXXII CORPS
Roulers
XXVI RES. CORPS
DE MITRY d'Oissel
2 Ersatz Bde.
37 Landwehr Bde.
9 CAV. DIV.
IX CORPS
7 CAV. DIV.
2 DIV.
XXVII RES. CORPS
Poperinghe
I CORPS
Ypres
Cavan
1 DIV.
3 DIV.
3 CAV. DIV.
BELGIUM
FRANCE
10 CAV. DIV.
XVI CORPS
VIDAL
32 DIV.
ARMY GROUP LINSINGEN
Wervicq
Menin
Lys
3 CAV. DIV.
1 CAV. DIV.
43 D.
39 D.
11 D.
Halluin
Comines
ARMY GROUP FABECK
CAVALRY CORPS
2 CAV. DIV.
Olleris
XIX CORPS
Hazebrouck
7 DIV. (less one bde.)
III CORPS
IV CORPS
Merville
Armentières
33 Landwehr Bde.
SIXTH ARMY
Aire
Lys
19 Inf. Bde.
6
25 RES. DIV.
Lille
LAHORE DIV.
48 RES. DIV.
INDIAN CORPS
Fromelles
38 Inf. Bde.
Fournes
MEERUT DIV.
14 DIV.
VII CORPS
13 DIV.
Béthune
La Bassée
28 DIV.
XIV CORPS (part)
XXI CORPS
GERMAN
BELGIUM
FRANCE
DIAGRAM ILLUSTRATING THE CREATION OF THE YPRES SALIENT
1
Germans
Ypres
2
Ypres
Germans
3
Germans
Ypres
Germans
The Ypres salient, now established, was held by Allied troops throughout the war. Despite a campaign of shelling, Ypres was never lost.
0
5
Miles
© Arthur Banks 1973


SMALL DETONATORS: BIG EXPLOSIONS!
0 · 200
Miles
BLOCKADE
2 August 1914, Winston Churchill mobilizes the British Grand Fleet. 0400 hours on 4 August, British Admiralty announces that mobilization is complete. THUS, THE BLOCKADE OF GERMANY (THE MAJOR DECISIVE FACTOR IN THE WAR) IS IN EXISTENCE FROM THE OUTBREAK OF HOSTILITIES.
CODES
26 August 1914, German cruiser SMS 'Magdeburg' is beached here. On following day, Russians wreck and burn the ship, but salvage German naval code-books and cyphers. These are passed to British Admiralty in London. THUS, THE BRITISH POSSESS GERMAN NAVAL SECRETS WITHIN ONE MONTH OF THE OUTBREAK OF WAR.
ATLANTIC
OCEAN
Scapa Flow
BRITISH FLEET
North
Sea
Odense
Portsmouth
Ypres
Somme
GAS
22 April 1915, Germans launch their first gas attack on the Western Front, gaining some ground. BUT, MORE IMPORTANT, THEY HAVE PREMATURELY DISCLOSED THE EXISTENCE OF THEIR NEW SECRET WEAPON TO THEIR ENEMIES.
(Note: on 3 January 1915, the Germans used lachrymatory gas shells against the Russians at Bolimov, but apparently this event was not communicated to their British and French allies.)
TANKS
15 September 1916, British launch their first tank attack of the war without major success. BUT, MORE IMPORTANT, THEY HAVE PREMATURELY DISCLOSED THE EXISTENCE OF THEIR NEW SECRET WEAPON TO THE GERMANS.
Constantinople
Mediterranean
Sea
THIRD FRONT
12 August 1914, two German warships (SMS 'Goeben' and SMS 'Breslau') arrive here after eluding Allied hunting units in the Mediterranean. THEIR PRESENCE IS AN IMPORTANT FACTOR IN TURKEY'S DECISION TO ENTER THE WAR ON THE SIDE OF THE CENTRAL POWERS, THUS CREATING A THIRD ENEMY FOR THE ENTENTE POWERS TO FIGHT.
The European events shown here were comparatively minor in themselves at the time. Yet they had long-term major implications.
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# THE WAR ON THE EASTERN FRONT

There were four other theatres of war in Europe during the autumn of 1914. Eight hundred miles to the east of the Belgian cockpit, Russian and German armies clashed in the marchlands of East Prussia while to their south other forces manoeuvred for position in the great plains of the Vistulan Basin. The principal Austrian army was concentrated at the outbreak of war in Galicia, with the well-forested range of the Carpathians in its rear, an admirable position for withstanding any Russian onslaught (compare pages 24 and 32). Farther south still, nearly four hundred miles across the Austro-Hungarian empire, another quarter of a million soldiers from Franz Josef's multinational empire were assigned the duty of 'punishing' Serbia. The commander of this Balkan Army was the former Governor of Bosnia, General Potiorek, who had been sitting in front of Archduke Franz Ferdinand on that fateful day in Sarajevo. But Potiorek, like all other Austro-Hungarian commanders, was subordinate to General Conrad von Hötzendorf, the Austrian Chief of Staff, who established his first headquarters in the reputedly impregnable Galician fortress town of Przemysl.

Although Conrad had hoped to cut off the Russians in Poland by joint Austro-German operations uniting the commands in East Prussia and Galicia, there was in fact little co-ordination between the various eastern European armies. The first shots in the whole war were fired by two monitors of the Austro-Hungarian Danube flotilla, which bombarded Belgrade on 29 July, five days before the opening of hostilities in western Europe. But thereafter all was peaceful until the middle of the second week in August when Conrad sent his First and Fourth armies northward into Russian Poland, while the first units of the Russian 1st Army invaded East Prussia, and Potiorek's troops crossed the river Sava and seized the Serbian town of Sabac.

The most dramatic of these undertakings was the Russian incursion towards the historic Prussian coronation city, Königsberg, some ninety miles from the frontier. The Schlieffen Plan had anticipated a German holding operation against Russia for some six or seven weeks, before the full weight of German arms was shifted to the West. On paper, there was no reason for German alarm, even though the invaders had a numerical superiority of more than four to one. But on 20 August three German army corps clashed with Rennenkampf's Russian First Army at Gumbinnen and did not distinguish themselves (pages 88–89). The German commander, Prittwitz, was worried by news that the Russian Second Army, under Samsonov, was threatening his southern flank, and sent alarming messages to Moltke's headquarters in the West. The situation was saved by one of Prittwitz's staff officers, Lieutenant-Colonel Max von Hoffmann, who knew there was a deep personal vendetta between Samsonov and Rennenkampf. Hoffmann proposed that the Germans should concentrate against Samsonov, leaving the route towards Königsberg apparently open for Rennenkampf (who would not resist this bait simply to aid the rival he so detested). Thus began the deployment for the battle of Tannenberg, three days of agony for the Russians, in which the Second Army was destroyed and its commander shot himself in despair.

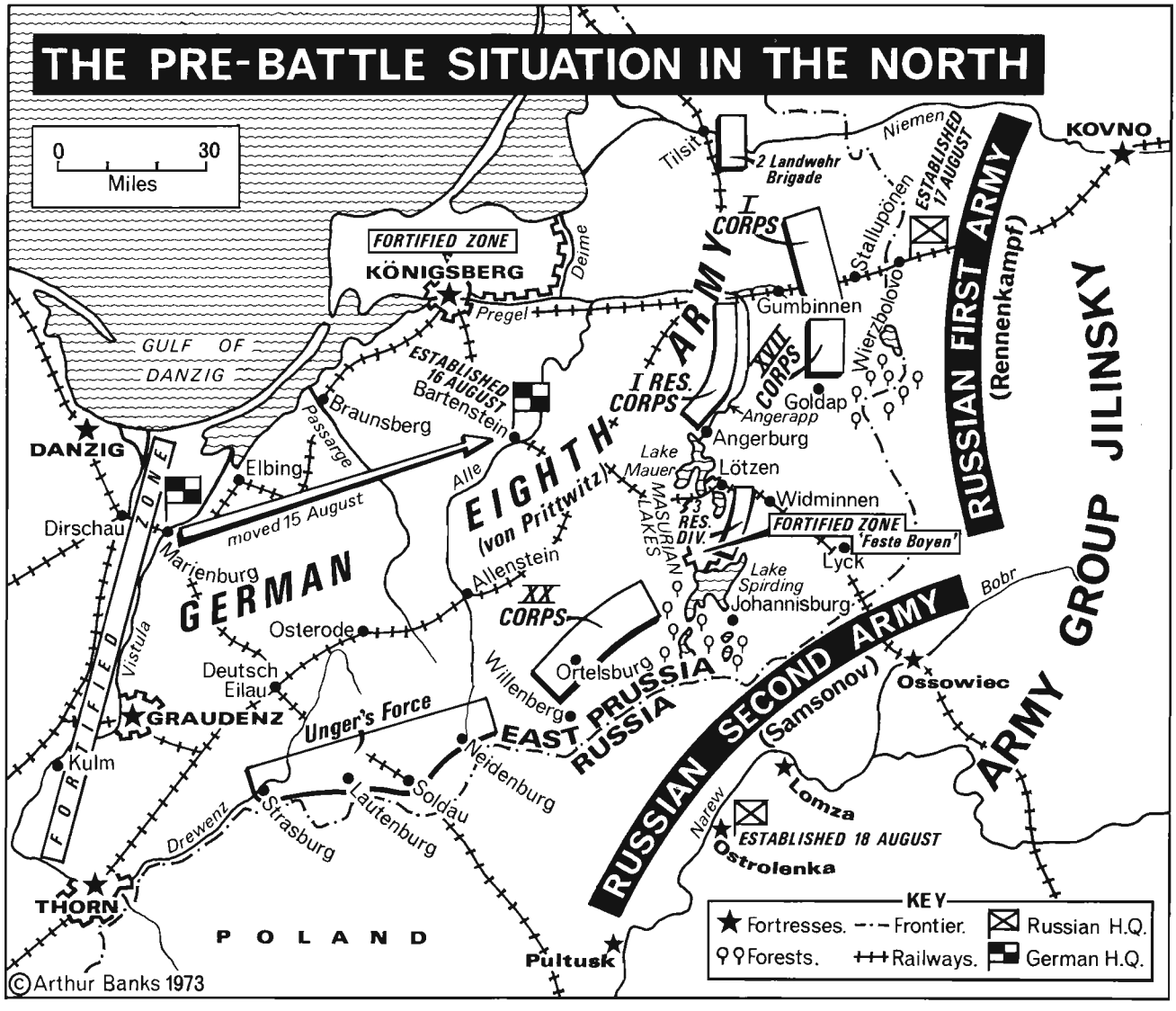
Tannenberg, like the Marne, became a legendary victory. The discovery of a Russian staff officer's body on the battlefield, with detailed military directives in his pocket, helped the Germans considerably; and so did the incredible folly of the three Russian headquarters in sending unciphered operations orders by wireless, with the Germans able to note down every word (see page 98). The ease of their victory made the Germans despise their Russian opponents and they therefore suffered heavy casualties in rash frontal assaults on Rennenkampf's army, which was caught at the Masurian Lakes in the first week of September. But the Masurian Lakes completed the triumph of Tannenberg: the Russians, after nibbling at the edge of East Prussia for twenty-eight days, were thrown back across the frontier, broken and demoralised. No Russian army penetrated German territory again until 1945.

The twin victories enabled the German people to find a heroic father-figure to idolise for the remainder of the War and beyond. Paul von Hindenburg was six weeks short of his sixty-seventh birthday when, on 22 August, he was summoned from obscure retirement to replace Prittwitz on the Eastern Front. Hindenburg

had been decorated for bravery both in the 1866 war with Austria and the 1870 war with France and he had witnessed the proclamation of the German Empire at Versailles in 1871. No one could describe him as a strategic genius. His greatest asset was his rocklike imperturbability. The brain behind his triumphs belonged to his deputy, Ludendorff, who had already distinguished himself in reducing the Liége forts (page 41); and, at least on the Eastern Front, Ludendorff owed much to Hoffmann, who understood the Russian military mind. But, in Germany, sentiment and propaganda combined to turn Hindenburg into a colossus of victory.

Austria-Hungary discovered no such idol. Conrad's decision to send the First and Fourth armies northwards from Galicia was based upon a false assumption. He thought that the Russian commander-in-chief, Grand Duke Nicholas, had ordered the commander of the South-Western Army Group, General Ivanov, to concentrate around Lublin. In reality the Russians were farther south-east, threatening Lemberg (Lvov) where Ivanov had, in his turn, wrongly assumed the main Austrian forces to be. There was, in consequence, a curious week of shadow-boxing before Conrad turned to meet the challenge to his flank from Ivanov (see pages 100–101). Conrad made the mistake of opening up a gap in the north which was filled by the Russian Fifth Army. Fearing he might be encircled, Conrad ordered a general retreat on 11 September, and found it impossible to stabilise the Front until the Russians had penetrated over a hundred miles, reaching the Carpathian passes into Hungary. The Austrians thus sustained a humiliating defeat, with the Russians capturing two provincial capitals, Lemberg (the fourth largest city in Austria-Hungary) and Czernowitz, as well as beseiging Przemsyl. The Slav contingents in the Austro-Hungarian Army (particularly the Czechs) had little heart for a war against 'Mother Russia', but large-scale desertions did not begin until the spring of 1915, and it is clear that the disaster reflects as much on Conrad and his staff as on the quality of the troops they commanded. Eventually the Austrians were saved by an offensive mounted by Hindenburg in central Poland and threatening Warsaw. An abortive Russian counter-offensive in Poland at the end of October threatened Silesia but brought down a massive German response from the north, when Mackensen's Ninth Army fell on the Russians at Lodz and as winter set in, destroyed all prospects of avenging Tannenberg. Though the Russians had triumphed in Galicia, the first four months of fighting against the Germans had proved disastrous and left the Russian artillery desperately short of shells.

Yet the strangest development of the war was in Serbia. For Putnik, the Serbian commander-in-chief, had successfully repelled Potiorek's first incursion across the river Sava, and nipped another offensive (across the river Drina) in the bud. At the end of November Potiorek tried again and captured Belgrade on 2 December, sweeping the Serbs back into the mountain heart of the Kingdom. Yet, though short of men and munitions, the Serbs made a surprise counter-attack and within eleven days had recovered their capital. 'On the whole territory of the Serbian Government there remains not one free enemy soldier', ran a proud communiqué on 15 December. Austria's humiliation was complete. Small wonder the German High Command began privately to wonder if they were allied to a living Empire or a corpse.


THE PRE-BATTLE SITUATION IN THE NORTH
0 30 Miles
KOVNO
Niemen
Tilsit
2 Landwehr Brigade
ESTABLISHED 17 AUGUST
I CORPS
RUSSIAN FIRST ARMY (Rennenkampf)
GROUP JILINSKY ARMY
Stallupönen
Wierzbolovo
Gumbinnen
FORTIFIED ZONE
KÖNIGSBERG
Deime
Pregel
GULF OF DANZIG
ESTABLISHED 16 AUGUST
Bartenstein
Braunsberg
Passarge
DANZIG
Elbing
Alle
EIGHTH ARMY (von Prittwitz)
I RES. CORPS
XVII CORPS
Goldap
Angerapp
Angerburg
Lake Mauer
Lötzen
MASURIAN LAKES
Widminnen
3 RES. DIV.
FORTIFIED ZONE 'Feste Boyen'
Lyck
Lake Spirding
Johannisburg
Dirschau
moved 15 August
Marienburg
GERMAN
Allenstein
XX CORPS
Osterode
Vistula
FORTIFIED ZONE
Deutsch Eilau
GRAUDENZ
Ortelsburg
Willenberg
EAST PRUSSIA
RUSSIA
Bobr
Ossowiec
RUSSIAN SECOND ARMY (Samsonov)
Unger's Force
Neidenburg
Soldau
Lautenburg
Strasburg
Drewenz
Kulm
Lomza
Narew
ESTABLISHED 18 AUGUST
Ostrolenka
THORN
POLAND
Pultusk
KEY
Fortresses.
Frontier.
Russian H.Q.
Forests.
Railways.
German H.Q.
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RUSSIAN OBJECTIVE (First Army)
RUSSIA
Deime
Insterburg
Stallupönen
H.Q.
Gumbinnen
Wierzbolovo
Pregel
H.Q.
H.Q.
moved 19 August
Angerapp
Nordenburg
Angerburg
Bartenstein
L.Mauer
'FESTE BOYEN'
MASURIAN LAKES
Lötzen
EAST PRUSSIA
Lyck
L.Spirding
RUSSIA
0 20 Miles


Russian Strategy
FIRST ARMY (230,000 men)
GERMAN EIGHTH ARMY (225,000 men)
MASURIAN LAKES
SECOND ARMY (230,000 men)
NOTE: fire-strength of a German infantry division was 50% greater than that of a Russian division.


RUSSIAN OBJECTIVES (Second Army)
H.Q.
Nordenburg
H.Q.
Bartenstein
moved 19 August
Angerburg
SECOND
Rastenburg
MASURIAN LAKES
'FESTE BOYEN'
L.Spirding
Seeburg
Allenstein
EAST PRUSSIA
FIRST
Rudczanny
Passenheim
RUSSIA
Bobr
H.Q.
Ostrolenka
0 20 Miles

# THE RUSSIAN 'STEAMROLLER' IN ACTION AT GUMBINNEN 20 AUGUST 1914

0 5 10 Miles

KEY
- Russian infantry.
- Russian cavalry.
- Russian movements.
- German infantry.
- German cavalry.
- German movements.
- Railways.
- Forests.

*By his failure (or inability: his troops were exhausted) to comply with Rennenkampf's instructions to secure the eastern bank of the Inster, Khan Nahichevanski leaves Russian right flank unguarded. German cavalry penetrate through the gap and forage as far east as Pillkallen.*

*Note: on 19 August, Oranovski was 50 miles east (i.e. to the rear) of the Russian van. An exhaustive gallop was instituted to close with the main advance.*

to Tilsit

to Tilsit

1&2 Guard Cav. Divs.

2&3 Cav. Divs.

**Guard Cavalry Corps** (Khan Nahichevanski)

*(withdrawing after a brief exchange of shots due to 'weariness' of men and horses)*

1 Ind. Cav. Bde. (Oranovski)

Pillkallen

Scherwindt

Inster

*unguarded gap*

1 Cav. Div.

2 Div.

28 Div.

*Note: on 17 August, von François had moved to a position east of Gumbinnen, contrary to orders.*

**I Corps** (von François)

1 Div.

29 Div.

**XX Corps** (Smirnov)

*First position of von François.*

*6 August, Russian minor success.*

Stallupönen

Eydtkuhnen

Wirbellen

**FIRST ARMY (Rennenkampf)**

**RUSSIAN — EAST PRUSSIA**

Insterburg

*Detachment from Konigsberg*

Gumbinnen

25 Div.

**III Corps** (Yepanchin)

27 Div.

40 Div. (major part)

35 Div.

36 Div.

**XVII Corps** (von Mackensen)

**EIGHTH ARMY (von Prittwitz)**

to Königsberg

Angerapp

Rominte

Lake Wischtyter

**IV Corps** (Aliyev)

Darkehmen

**I Res. Corps** (von Below)

36 Res. Div.

1 Res. Div.

40 Div. (minor part)

30 Div.

Goldap

*GERMAN H.Q. 19-20 AUGUST*

to Nordenburg

5 Rifle Bde.

(Gourko)

1 Cav. Div.

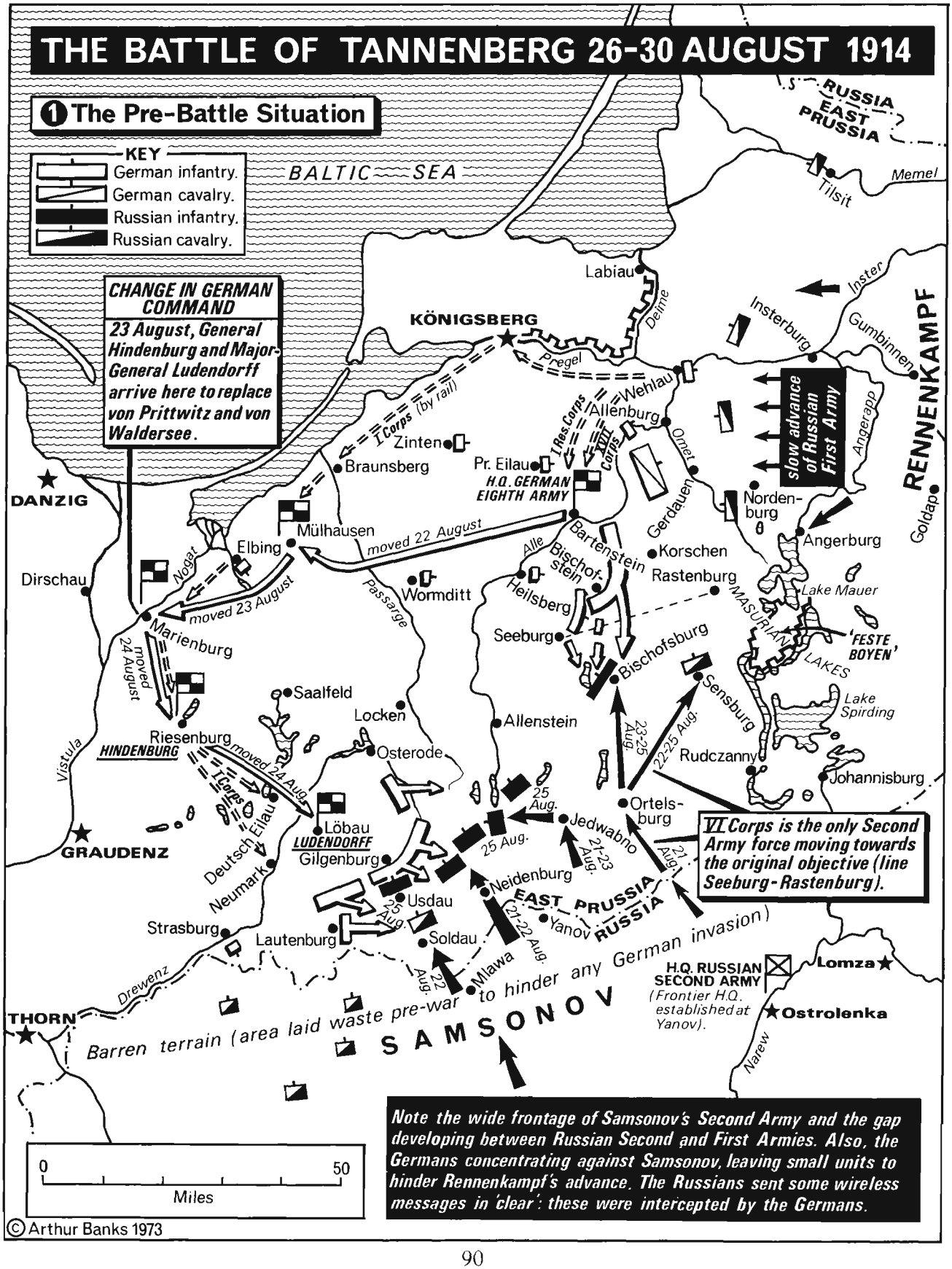
Angerburg

3 Res. Div.

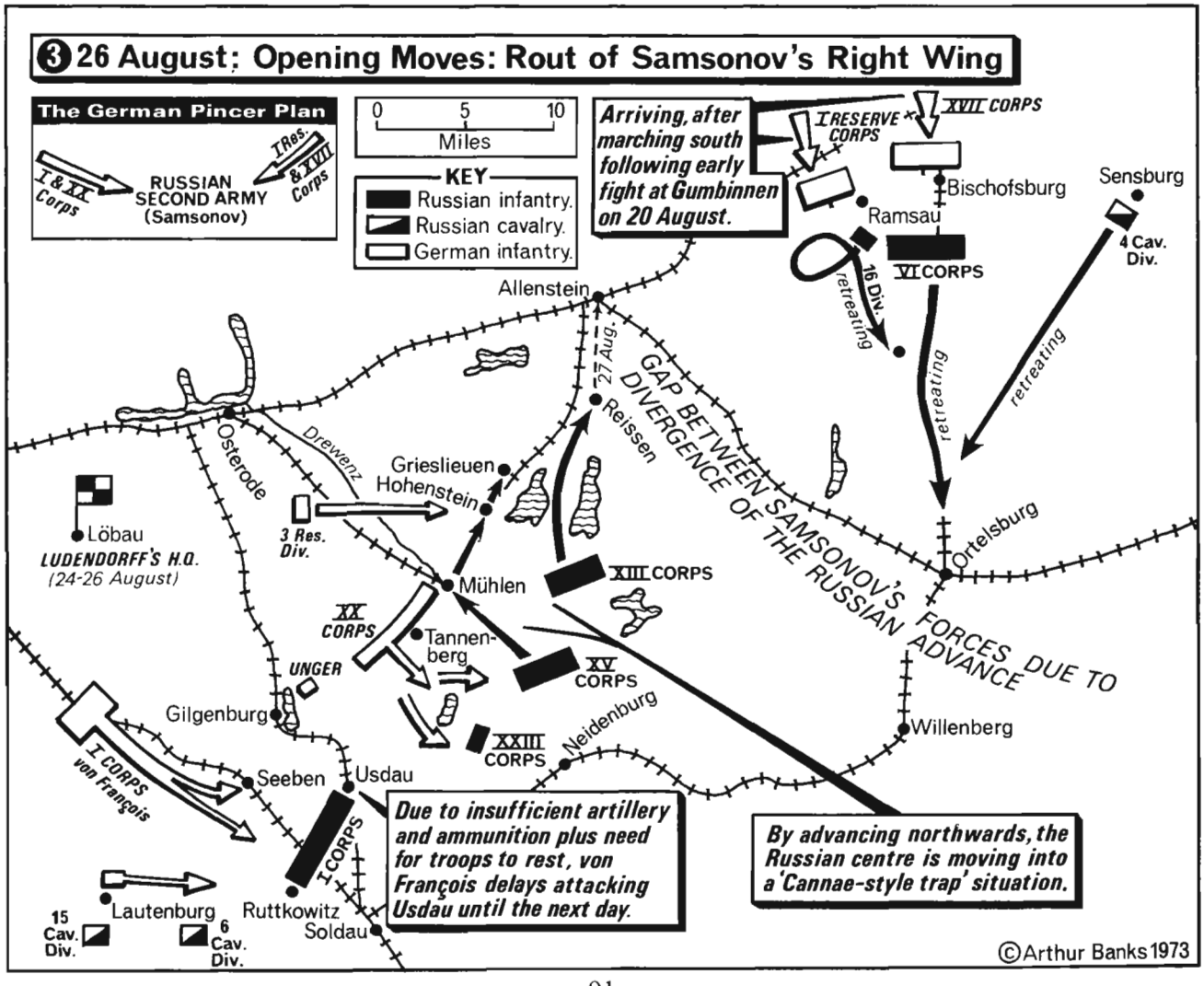
*The battle was a German 'delaying action'. The Russian advance now became slow and cautious: this suited the Germans perfectly.*

*By mid-August, von Prittwitz faced a 'two-front war' situation. The question was: which Russian army to fight first, Rennenkampf's or Samsonov's? The Russians resolved the problem for him. Eager to relieve pressure on their French allies on the Western Front, Rennenkampf moved across the frontier on 17 August (that is, some days ahead of Samsonov). On 20 August, an indecisive action was fought near Gumbinnen, following which the Russians assumed that the Germans were in flight. (In fact, the Germans were withdrawing to concentrate against Samsonov in the south). From this map, it can be seen that the Germans achieved good results on their flanks, especially in the north, but met with a reverse in the centre (von Mackensen's front).*

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THE BATTLE OF TANNENBERG 26-30 AUGUST 1914
1 The Pre-Battle Situation
KEY
German infantry.
German cavalry.
Russian infantry.
Russian cavalry.
CHANGE IN GERMAN COMMAND
23 August, General Hindenburg and Major-General Ludendorff arrive here to replace von Prittwitz and von Waldersee.
BALTIC SEA
RUSSIA
EAST PRUSSIA
Memel
Tilsit
Labiau
Deime
KÖNIGSBERG
Pregel
Insterburg
Inster
Gumbinnen
RENNENKAMPF
Wehlau
Allenburg
I Corps (by rail)
I Res. Corps
VIII Corps
Zinten
Pr. Eilau
H.Q. GERMAN EIGHTH ARMY
Braunsberg
Ornet
slow advance of Russian First Army
Angerapp
Goldap
DANZIG
Mülhausen
moved 22 August
Elbing
Nogat
Gerdauen
Norden-burg
Angerburg
Alle
Bartenstein
Bischof-stein
Korschen
Rastenburg
Dirschau
Wormditt
Passarge
Heilsberg
Lake Mauer
MASURIAN LAKES
'FESTE BOYEN'
moved 23 August
Marienburg
moved 24 August
Seeburg
Bischofsburg
Saalfeld
Locken
Allenstein
Sensburg
Lake Spirding
Vistula
Riesenburg
HINDENBURG
moved 24 Aug.
Osterode
23-25 Aug.
22-25 Aug.
Rudczanny
Johannisburg
I Corps
Löbau
LUDENDORFF
Gilgenburg
25 Aug.
Jedwabno
Ortels-burg
21-23 Aug.
21 Aug.
VI Corps is the only Second Army force moving towards the original objective (line Seeburg-Rastenburg).
GRAUDENZ
Deutsch Eilau
Neumark
Neidenburg
EAST PRUSSIA
RUSSIA
Usdau
Strasburg
Lautenburg
Soldau
Yanov
21-22 Aug.
Mlawa
Aug. 22
to hinder any German invasion)
H.Q. RUSSIAN SECOND ARMY
(Frontier H.Q. established at Yanov).
Lomza
Ostrolenka
Drewenz
THORN
Barren terrain (area laid waste pre-war
SAMSONOV
Narew
Note the wide frontage of Samsonov's Second Army and the gap developing between Russian Second and First Armies. Also, the Germans concentrating against Samsonov, leaving small units to hinder Rennenkampf's advance. The Russians sent some wireless messages in 'clear': these were intercepted by the Germans.
0
50
Miles
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2 The German Wireless Organization
Baltic Sea
KÖNIGSBERG
Gumbinnen
1 CAVALRY DIVISION
KOVNO
Vilna
RUSSIAN FIRST ARMY 'BASE'
transmitting
0 25 50 75 100 125 150
Miles
In addition, there were a number of light mobile field sets.
TWO MOBILE RECEIVERS/TRANSMITTERS (ONE HEAVY, ONE LIGHT). RANGES: 150 AND 50 MILES.
PERMANENT HEAVY RECEIVERS/TRANSMITTERS. RANGES: 500/600 MILES.
H.Q.
Riesenburg
MASURIAN LAKES
Minsk
GERMANY
GRODNO
RUSSIA
THORN
transmitting
PERMANENT HEAVY RECEIVER/TRANSMITTER. RANGE: 300 MILES.
Ostrolenka
RUSSIAN SECOND ARMY 'BASE'
TWO HEAVY RECEIVERS/TRANSMITTERS. RANGES: 150 MILES.
POSEN
NOVO-GEORGIEVSK
Cypher experts were attached to the main sets.


3 26 August: Opening Moves: Rout of Samsonov's Right Wing
The German Pincer Plan
I Res.
I & XX Corps
RUSSIAN SECOND ARMY (Samsonov)
8 & XVII Corps
0 5 10
Miles
KEY
Russian infantry.
Russian cavalry.
German infantry.
Arriving, after marching south following early fight at Gumbinnen on 20 August.
I RESERVE CORPS
XVII CORPS
Bischofsburg
Sensburg
Ramsau
4 Cav. Div.
VI CORPS
16 Div.
retreating
Allenstein
27 Aug.
GAP BETWEEN SAMSONOV'S DIVERGENCE OF THE RUSSIAN FORCES DUE TO ADVANCE
Reissen
Osterode
Drewenz
Griesliehen
Hohenstein
Ortelsburg
Löbau
LUDENDORFF'S H.Q. (24-26 August)
3 Res. Div.
Mühlen
XIII CORPS
XX CORPS
Tannen-berg
XV CORPS
UNGER
Gilgenburg
Neidenburg
Willenberg
XXIII CORPS
I CORPS von François
Seeben
Usdau
I CORPS
Due to insufficient artillery and ammunition plus need for troops to rest, von François delays attacking Usdau until the next day.
By advancing northwards, the Russian centre is moving into a 'Cannae-style trap' situation.
Lautenburg
Ruttkowitz
Soldau
15 Cav. Div.
6 Cav. Div.
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# THE BATTLE OF TANNENBERG – continued

0 1 2 3 Miles

## ④ 27 August: Main Operations: The Defeat of Samsonov's Left Wing

*Apart from these operations against Samsonov, the Germans kept a watchful eye on the virtually "unguarded" Rennenkampf to the north (the only sizable unit in the path of Russian First Army was German 1 Cavalry Division). A rapid advance by Rennenkampf (who imagined that the Germans had retired on Königsberg following the Gumbinnen action) would have jeopardized the German plans at this stage. As it was, Rennenkampf was increasing his rate of advance to nearly twenty miles a day.*

KEY
Russian infantry.
Russian cavalry.
German infantry.

(Allenstein is occupied without a fight)

1 Div. XIII CORPS (Klyuchev) 2 BDE.

1 BDE.

Gilgenau

Griesliеuen

8 Div.

Gr. Plautziger Lake

Mörken

2 BDE.

Reichenau

Hohenstein

3 Res. Div.

6 Div.

XV CORPS (Martos)

moved from Löbau

Geierswalde

Unger's Force

Gr. Maransen Lake

Mühlen

The German senior command keeps moving forward so that close contact is always maintained with the assault troops.

Frögenau
LUDENDORFF'S ADVANCED H.Q.

Tannenberg

73 BDE. towards Waplitz

Waplitz

Lake Mühlen

37 Div.

Thurowkien

XX CORPS (von Scholtz)

75 BDE. towards Waplitz

Germans begin advance south of Lake Mühlen (towards Waplitz) but wheel to counter Russian threat north of lake.

Logdau

72 BDE. towards Waplitz

1 BDE. Januschkau

Gilgenburg

Gr. Damerau Lake

2 Div. (from XXIII Corps)

41 Div.

74 BDE.

74 BDE.

Lake Kownatken

Rontzken

GR. 1 BDE.

2 BDE.

(arrived by car from Ostralenka on 26 August)
SAMSONOV

Neidenburg

Rauschken

Thalheim

Heavy artillery bombardment by Germans.

SCHMETTAU

Frödau

6 Cav. Div. (half)

1 Div.

Usdau

Krämersdorf

I CORPS (Artamanov) later, dismissed

Gr. Koschlau

24 Div.

Grallau

Gr Tauersee

Wilmsdorf

I CORPS (von François)

2 Div.

22 Div.

Skurpien

REARGUARD

G.R. KEXHOLM

Heinrichsdorf

5 LAND. BDE.

Russians gain this but it is recaptured by Germans.

Scharnau

Soldau

15 Cav. Div.

6 Cav. Div. (half)

to the frontier and Mlawa

RUSSIANS RETREAT IN PANIC, PURSUED BY GERMANS.

## THE SITUATION ON SAMSONOV'S RIGHT WING

Germans from Gumbinnen.

Bischofsburg

Ramsau

I RES. CORPS (von Below)

XVII CORPS (von Mackensen)

Diverging to join the main battle.

In pursuit of Russian VI Corps.

Passenheim

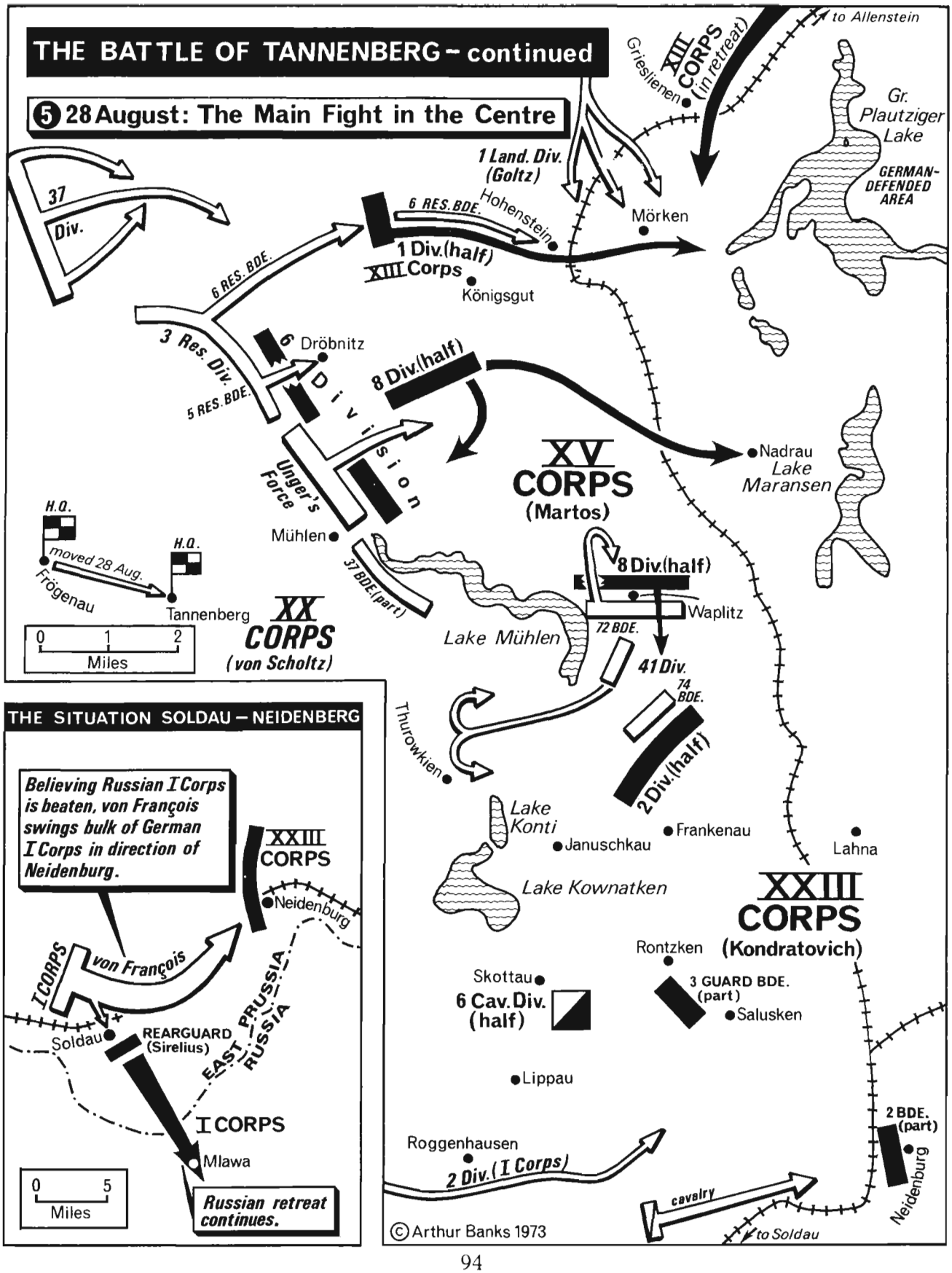
Ortelsburg

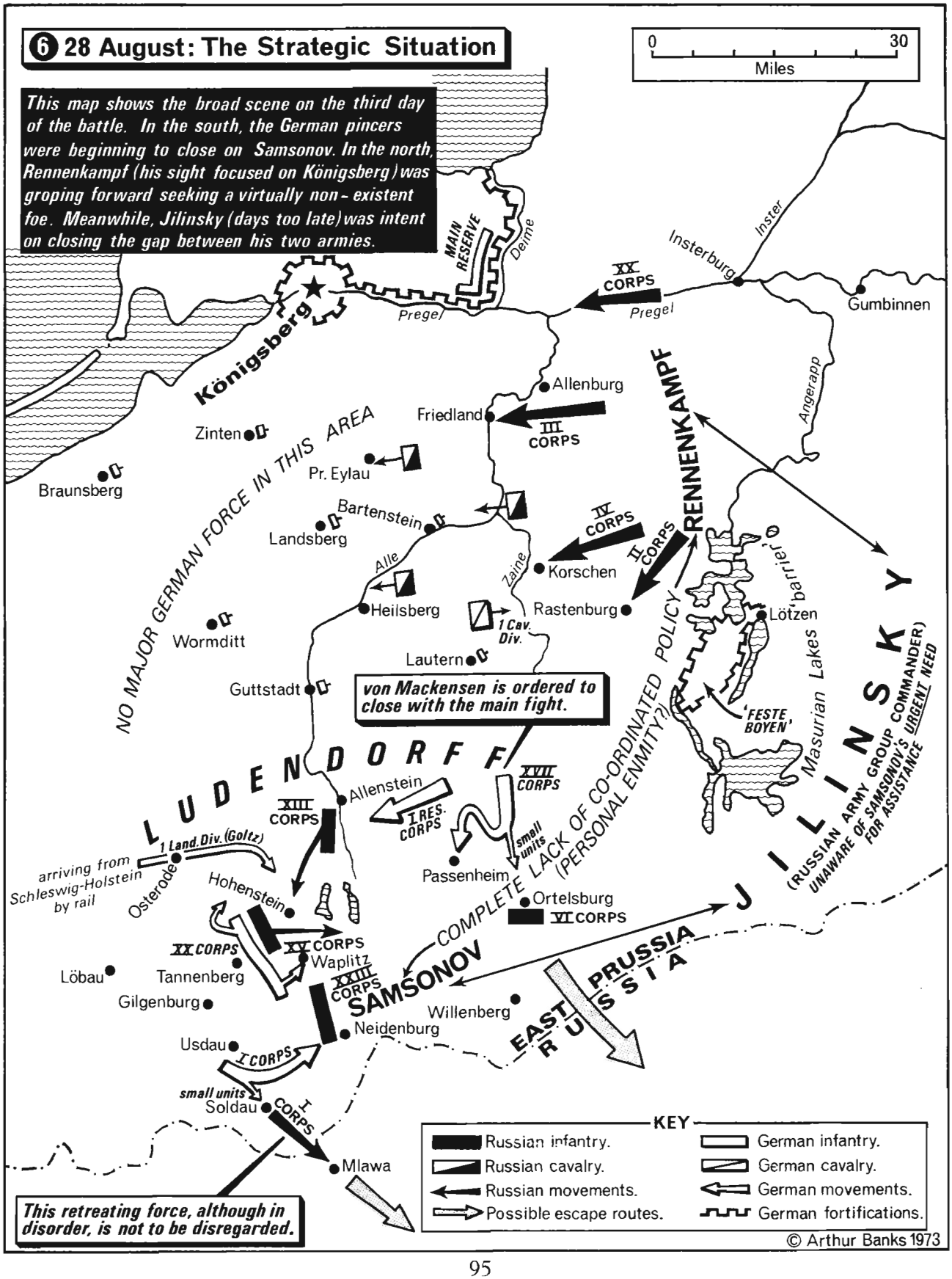
VI CORPS (Blagoveshchenski)

Willenburg

0 5 10 Miles

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THE BATTLE OF TANNENBERG – continued
5 28 August: The Main Fight in the Centre
to Allenstein
XIII CORPS (in retreat)
Grieslienen
Gr. Plautziger Lake
GERMAN-DEFENDED AREA
1 Land. Div. (Goltz)
37 Div.
6 RES. BDE.
Hohenstein
Mörken
1 Div.(half)
XIII Corps
Königsgut
6 RES. BDE.
3 Res. Div.
5 RES. BDE.
6 Dröbnitz
Division
8 Div.(half)
Unger's Force
XV CORPS (Martos)
Nadrau
Lake Maransen
H.Q.
moved 28 Aug.
Frögenau
H.Q.
Tannenberg
Mühlen
37 BDE.(part)
8 Div.(half)
Waplitz
72 BDE.
Lake Mühlen
41 Div.
74 BDE.
2 Div.(half)
XX CORPS (von Scholtz)
0 1 2 Miles
Thurowkien
Lake Konti
Januschkau
Frankenau
Lahna
Lake Kownatken
XXIII CORPS (Kondratovich)
Rontzken
3 GUARD BDE. (part)
Salusken
Skottau
6 Cav.Div. (half)
Lippau
2 BDE. (part)
Neidenburg
Roggenhausen
2 Div.(I Corps)
cavalry
to Soldau
© Arthur Banks 1973
THE SITUATION SOLDAU – NEIDENBURG
Believing Russian I Corps is beaten, von François swings bulk of German I Corps in direction of Neidenburg.
XXIII CORPS
Neidenburg
I CORPS
von François
Soldau
REARGUARD (Sirelius)
EAST PRUSSIA
RUSSIA
I CORPS
Mlawa
0 5 Miles
Russian retreat continues.


6 28 August: The Strategic Situation
This map shows the broad scene on the third day of the battle. In the south, the German pincers were beginning to close on Samsonov. In the north, Rennenkampf (his sight focused on Königsberg) was groping forward seeking a virtually non-existent foe. Meanwhile, Jilinsky (days too late) was intent on closing the gap between his two armies.
0
30
Miles
Königsberg
MAIN RESERVE
Deime
Pregel
Pregel
XX CORPS
Insterburg
Inster
Gumbinnen
Angerapp
Allenburg
Friedland
III CORPS
RENNENKAMPF
Zinten
Pr. Eylau
Braunsberg
NO MAJOR GERMAN FORCE IN THIS AREA
Bartenstein
Landsberg
Alle
Zaine
IV CORPS
II CORPS
Korschen
Rastenburg
Lötzen
barrier
Heilsberg
1 Cav. Div.
Wormditt
Lautern
Guttstadt
Masurian Lakes
'FESTE BOYEN'
von Mackensen is ordered to close with the main fight.
LUDENDORFF
JILINSKY
(RUSSIAN ARMY GROUP COMMANDER) UNAWARE OF SAMSONOV'S URGENT NEED FOR ASSISTANCE
COMPLETE LACK OF CO-ORDINATED POLICY (PERSONAL ENMITY?)
XVIII CORPS
XIII CORPS
Allenstein
I RES. CORPS
small units
1 Land. Div. (Goltz)
arriving from Schleswig-Holstein by rail
Osterode
Hohenstein
Passenheim
Ortelsburg
VI CORPS
XX CORPS
XV CORPS
Waplitz
Löbau
Tannenberg
XXIII CORPS
SAMSONOV
Gilgenburg
Willenberg
Neidenburg
EAST PRUSSIA
RUSSIA
Usdau
I CORPS
small units
Soldau
I CORPS
Mlawa
This retreating force, although in disorder, is not to be disregarded.
KEY
Russian infantry.
Russian cavalry.
Russian movements.
Possible escape routes.
German infantry.
German cavalry.
German movements.
German fortifications.
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# THE BATTLE OF TANNENBERG – continued

## ❼ Operations 29-30 August: The Final Act and Curtain (Samsonov's Suicide)

0 5 10 15 Miles

to Bischofsburg

to Wartenburg

Allenstein

I RESERVE CORPS (von Below)

German H.Q. moves to Osterode on 29 August.

Klankendorf

Gr. Purden

XVII CORPS (von Mackensen)

to Osterode

Lake Wulping

Lake Kosna

Passenheim

Gr. Schoben Lake

1 Land. Div. (Goltz)

XIII CORPS (Klyuchev)

4 CAV. DIV.

Grosser Plautziger Lake

Lake Lansker

German-held area

Lake Dluszek

Ortelsburg

to Rudczanny

retreating

Hohenstein

XV CORPS (Martos)

Jedwabno

VI CORPS (Blagoveshchenski)

Lake Maransen

to Osterode

Unger's Force

Mühlen

Waplitz

Lake Omulef

retreating

XX CORPS (von Scholtz)

XXIII CORPS (Kondratovich)

Grünfl...

Lahna

retreating

retreating

retreating

Willenberg

SMALL FORCE.

Muschaken

SCHMETTAU

Puchallowen

Gr. Pivnitz

31 August, Samsonov (ill and dejected) shoots himself.

I CORPS (von François)

Neidenburg

EAST PRUSSIA

RUSSIA

Yanov

FRONTIER H.Q.

30 August, Sirelius occupies Neidenburg for a brief period.

withdrawing

advancing

NOTE: UNDER EFFICIENT LEADERSHIP, THE WEARY RUSSIANS MIGHT STILL HAVE BROKEN THROUGH THE THIN GERMAN SCREEN AND ESCAPED.

to Ostrolenka

Soldau

small units

small units

Mlawa

29 August, reorganizing in haste.

I CORPS (now under Sirelius)

to Novo-Georgievsk

HISTORICAL NOTE

THE GERMANS NAMED THE BATTLE "TANNENBERG" TO EFFACE THE MEMORY OF A DEFEAT SUFFERED BY THE TEUTONIC KNIGHTS AT THE HANDS OF A LITHUANIAN–POLISH FORCE IN THE YEAR A.D. 1410.

Precise casualties are unknown due to conflicting estimates. It seems certain that over one-half of Russian Second Army's 230,000 men were killed, wounded, and/or captured.

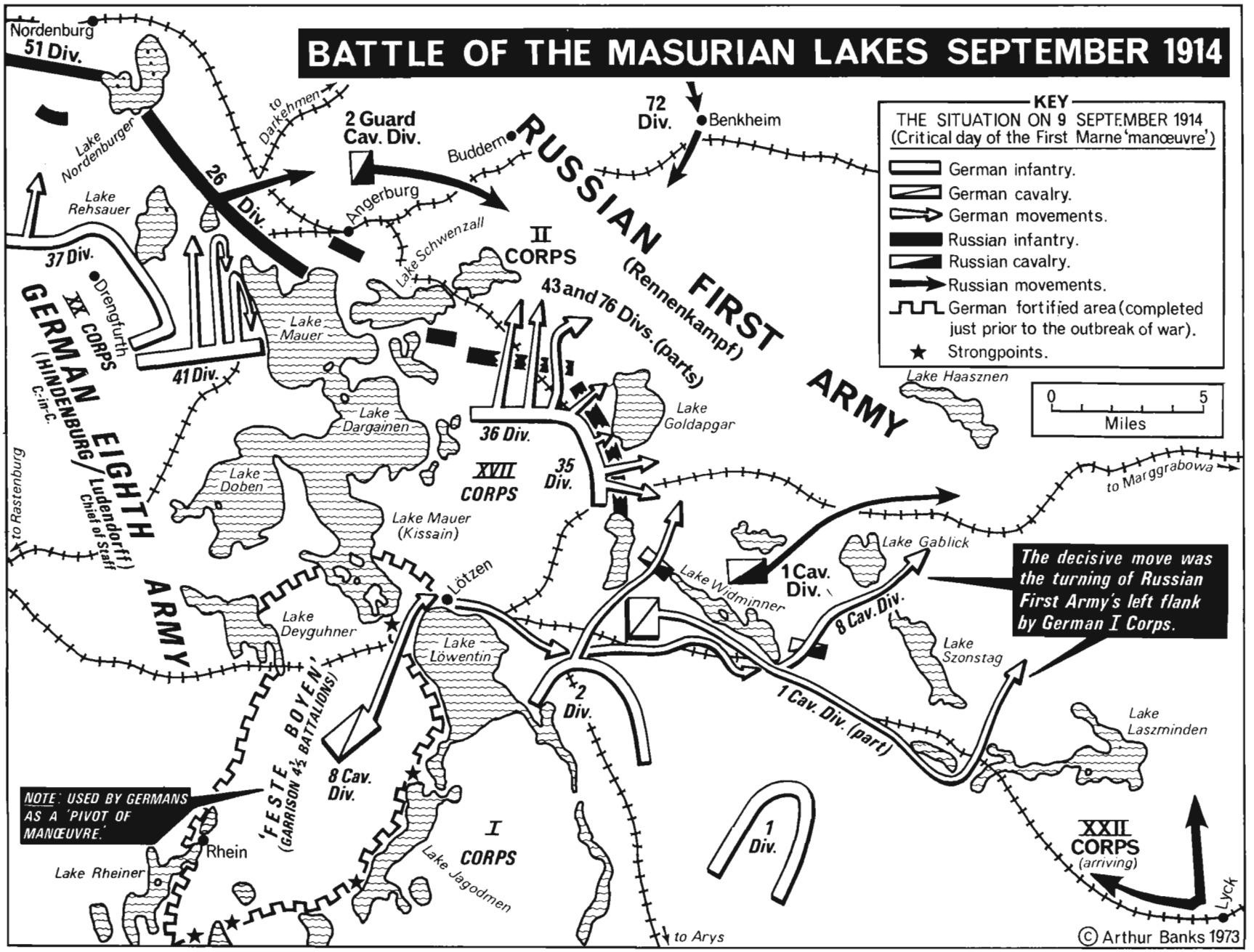
KEY

- German forces.
- German movements.
- Russian forces.
- Russian movements.
- Areas where Russian troops surrendered in large numbers.
- Forest area where Samsonov killed himself after midnight 30 August.

TRANSLITERATION NOTE: there are several different systems in use in Britain and the U.S.A. The spellings on these maps are a compromise between exact transliteration and pronouncability. For example, Jilinsky could be shown variously as Shilinsky (the correct version), Gilinsky, or Zhilinsky. Strictly speaking, names ending in -SKI should be terminated by Y(-SKIY).

This map shows the final stage of the battle in broad outline. The three Russian corps in Samsonov's centre (XIII, XV, and XXIII) were retreating, hoping to extricate themselves from the German trap. But it was too late: as von Below and von Scholtz advanced from north and west respectfully, von François had already cut the Russian escape routes in the south. It needed only von Mackensen to arrive from the north-east to seal the fate of the bulk of Russian Second Army. The credit for the German plan is usually given to a Lieutenant-Colonel Hoffman (who was on the staff of von Prittwitz before the Hindenburg/Ludendorff team arrived). But the German victory was incomplete: Rennenkampf still remained in the north. During first week in September, two corps and a cavalry division arrived from the Western Front (affecting the first Marne battle?) to strengthen German Eighth Army.

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BATTLE OF THE MASURIAN LAKES SEPTEMBER 1914
KEY
THE SITUATION ON 9 SEPTEMBER 1914
(Critical day of the First Marne 'manœuvre')
German infantry.
German cavalry.
German movements.
Russian infantry.
Russian cavalry.
Russian movements.
German fortified area (completed just prior to the outbreak of war).
Strongpoints.
0
5
Miles
Nordenburg
51 Div.
Lake Nordenburger
to Darkehmen
2 Guard Cav. Div.
72 Div.
Benkheim
Buddern
RUSSIAN FIRST ARMY
(Rennenkampf)
26 Div.
Angerburg
Lake Rehsauer
Lake Schwenzall
II CORPS
43 and 76 Divs. (parts)
37 Div.
Drengfurth
XX CORPS
GERMAN EIGHTH ARMY
(HINDENBURG/Ludendorff)
C.-in-C. Chief of Staff
41 Div.
Lake Mauer
Lake Haasznen
Lake Dargainen
Lake Goldapgar
36 Div.
XVII CORPS
35 Div.
Lake Doben
to Rastenburg
to Marggrabowa
Lake Mauer (Kissain)
Lake Gablick
1 Cav. Div.
Lake Widminner
Lötzen
The decisive move was the turning of Russian First Army's left flank by German I Corps.
Lake Deyguhner
8 Cav. Div.
Lake Szonstag
Lake Löwentin
2 Div.
1 Cav. Div. (part)
Lake Laszminden
NOTE: USED BY GERMANS AS A 'PIVOT OF MANŒUVRE.'
'FESTE BOYEN' (GARRISON 4½ BATTALIONS)
8 Cav. Div.
Rhein
Lake Rheiner
I CORPS
Lake Jagodmen
1 Div.
XXII CORPS (arriving)
Lyck
to Arys
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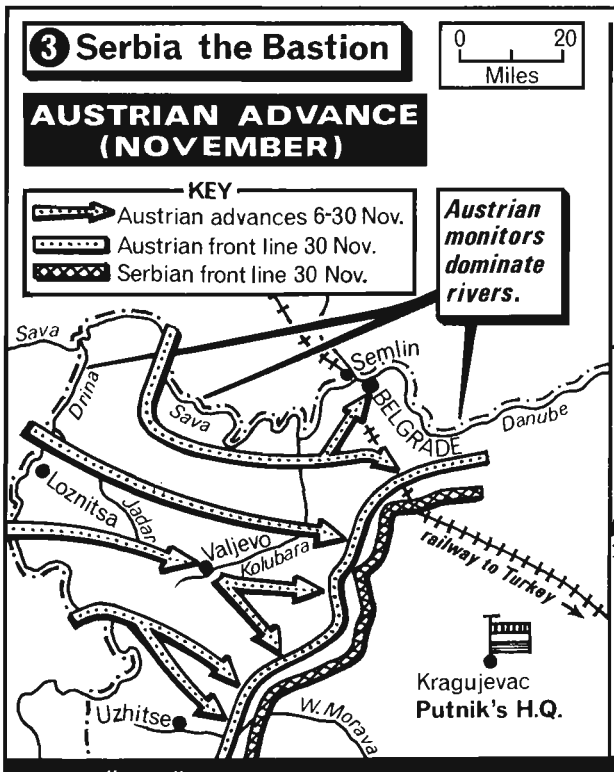
# SERBIA IN TRAVAIL AND TRIUMPH 1914

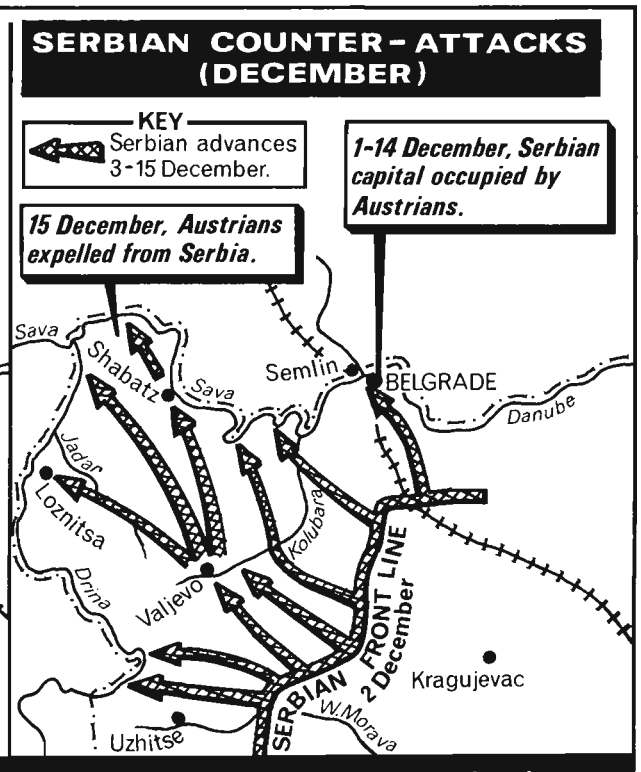
*Punitive expedition: so-called by the Austrians after it had failed.





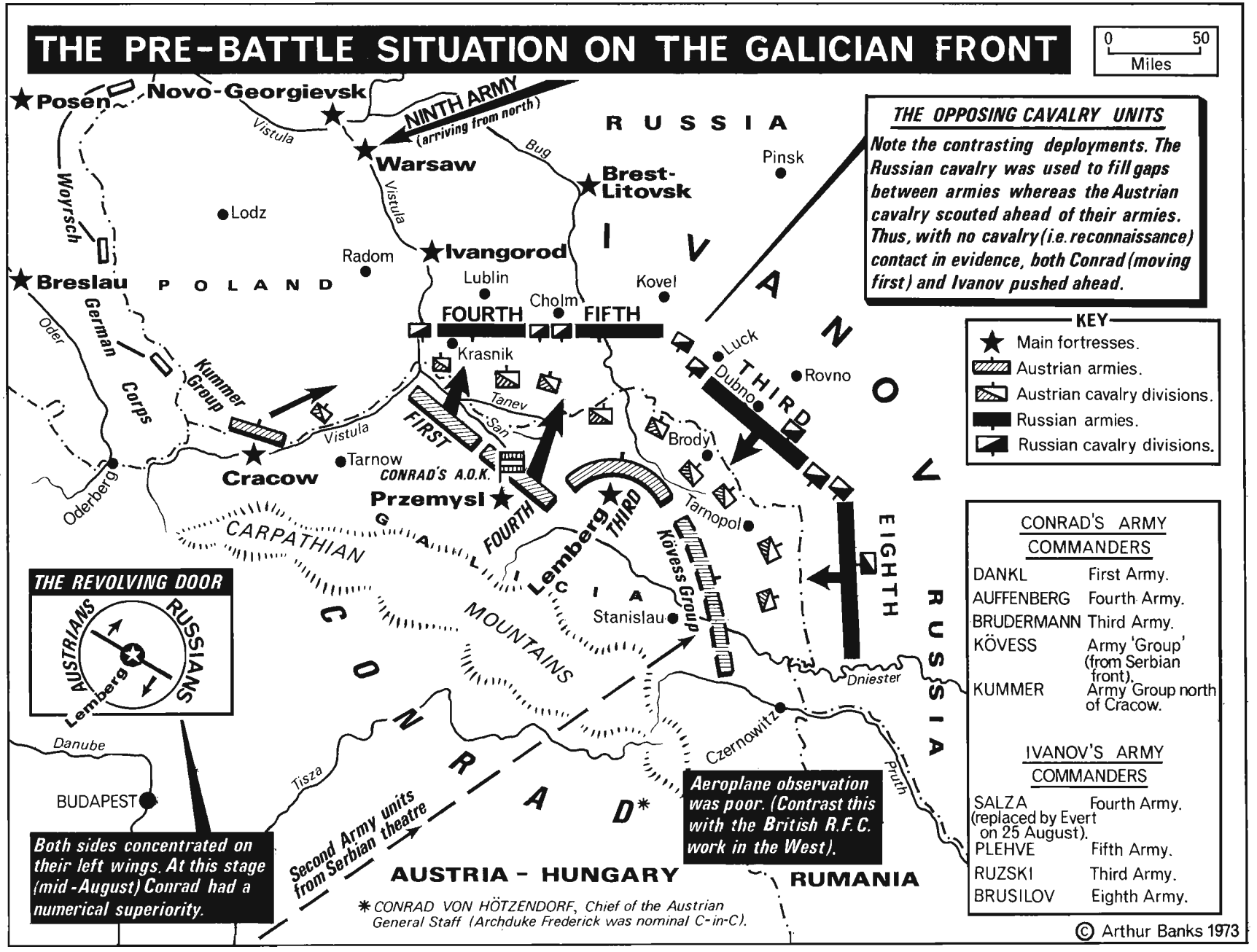




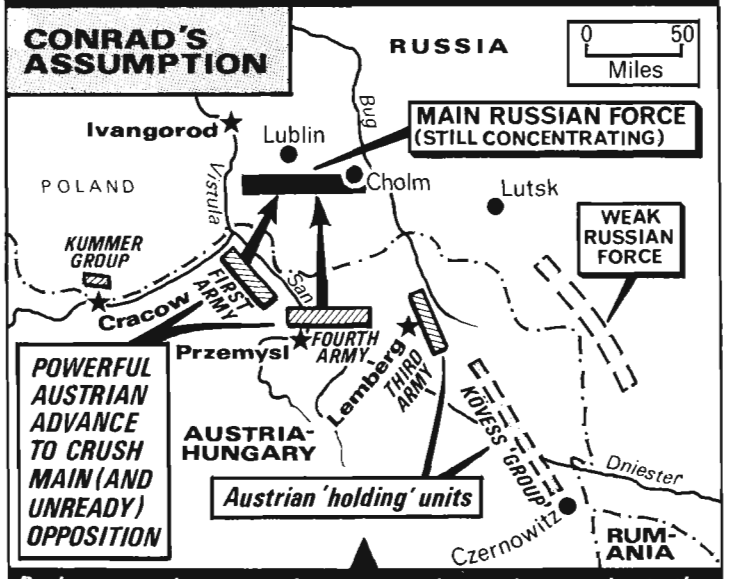




*In 1914, "little" Serbia astounded the world by blocking and repelling the invading armies of Austria-Hungary. German reaction was derisive: "Allies? We are shackled to a corpse." It is important to note that part only of Austrian Second Army was engaged in August, and these units were gradually withdrawn to fight on the Galician front. However, a Serbian Army equalled little more than an Austrian corps.*

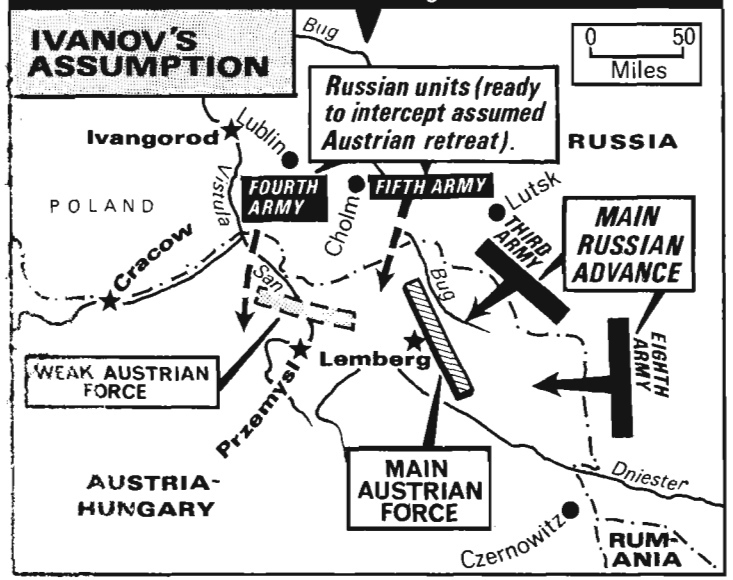
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THE PRE-BATTLE SITUATION ON THE GALICIAN FRONT
0 50 Miles
Posen
Novo-Georgievsk
NINTH ARMY (arriving from north)
Warsaw
Vistula
Bug
RUSSIA
Pinsk
Brest-Litovsk
Wovrsch
Lodz
Radom
Ivangorod
Lublin
Kovel
Breslau
POLAND
Cholm
FOURTH
FIFTH
Oder
German Corps
Kummer Group
Krasnik
Luck
Dubno
Rovno
THIRD
Tanev
San
FIRST
Vistula
Tarnow
Brody
Cracow
CONRAD'S A.O.K.
Przemysl
Oderberg
FOURTH
Lemberg
THIRD
Tarnopol
CARPATHIAN MOUNTAINS
GALICIA
Kövess Group
EIGHTH
Stanislau
Dniester
Danube
Tisza
BUDAPEST
Second Army units from Serbian theatre
Czernowitz
Pruth
AUSTRIA - HUNGARY
RUMANIA
IVANOV
CONRAD*
THE OPPOSING CAVALRY UNITS
Note the contrasting deployments. The Russian cavalry was used to fill gaps between armies whereas the Austrian cavalry scouted ahead of their armies. Thus, with no cavalry (i.e. reconnaissance) contact in evidence, both Conrad (moving first) and Ivanov pushed ahead.
KEY
Main fortresses.
Austrian armies.
Austrian cavalry divisions.
Russian armies.
Russian cavalry divisions.
THE REVOLVING DOOR
AUSTRIANS
RUSSIANS
Lemberg
Both sides concentrated on their left wings. At this stage (mid-August) Conrad had a numerical superiority.
Aeroplane observation was poor. (Contrast this with the British R.F.C. work in the West).
CONRAD'S ARMY COMMANDERS
DANKL First Army.
AUFFENBERG Fourth Army.
BRUDERMANN Third Army.
KÖVESS Army 'Group' (from Serbian front).
KUMMER Army Group north of Cracow.
IVANOV'S ARMY COMMANDERS
SALZA (replaced by Evert on 25 August). Fourth Army.
PLEHVE Fifth Army.
RUZSKI Third Army.
BRUSILOV Eighth Army.
* CONRAD VON HÖTZENDORF, Chief of the Austrian General Staff (Archduke Frederick was nominal C-in-C).
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# THE CONFLICTING PLANS




*Both assumptions were incorrect and exactly opposite to the facts, possibly due to inadequate Intelligence and poor cavalry reconnaissance. Each side wished to fight the other's main force.*

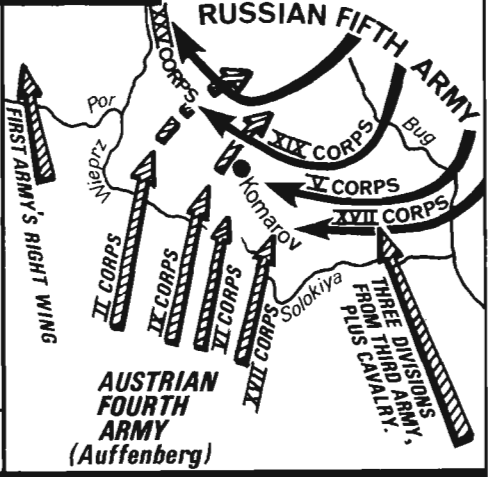



# THE NORTHERN CLASH

## ① 23-25 AUGUST




## ② 26-30 AUGUST

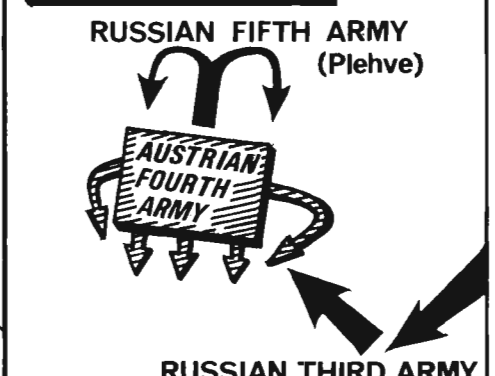



*Austrian First Army clashed with Russian Fourth Army which withdrew. Russian Fifth Army on Fourth Army's left, wheeled right thus exposing its left flank to the Austrian Fourth Army. Strengthened on his right by divisions under Archduke Josef Ferdinand, Auffenberg sensed an opportunity to envelop the Russians.*

## ③ 31 AUGUST-1 SEPT.




## ④ 2 SEPTEMBER




*Austrian right and left flanks (believing enemy units to be moving towards their rears) fell back and the Russians escaped being encircled. Auffenberg reversed his main force and marched south to aid the now-threatened Austrian Third Army (see next page). The advancing Russian Third Army swung north-west to aid Plehve.*

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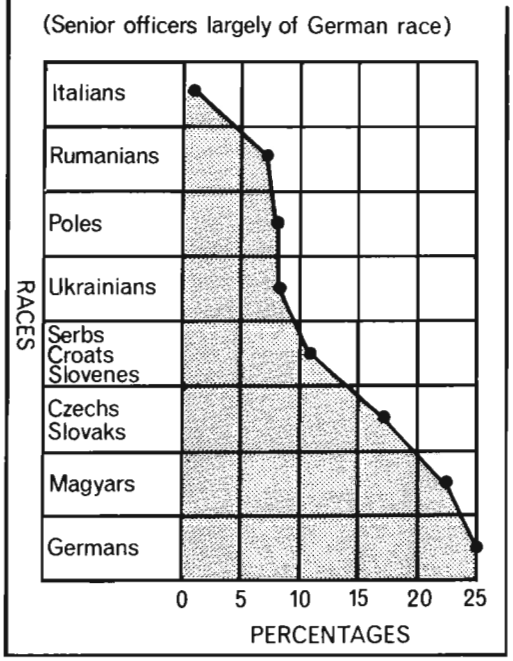
# LEMBERG-PRZEMYSL OPERATIONS

## ❶ The Russian Advance on Lemberg

26-31 AUGUST

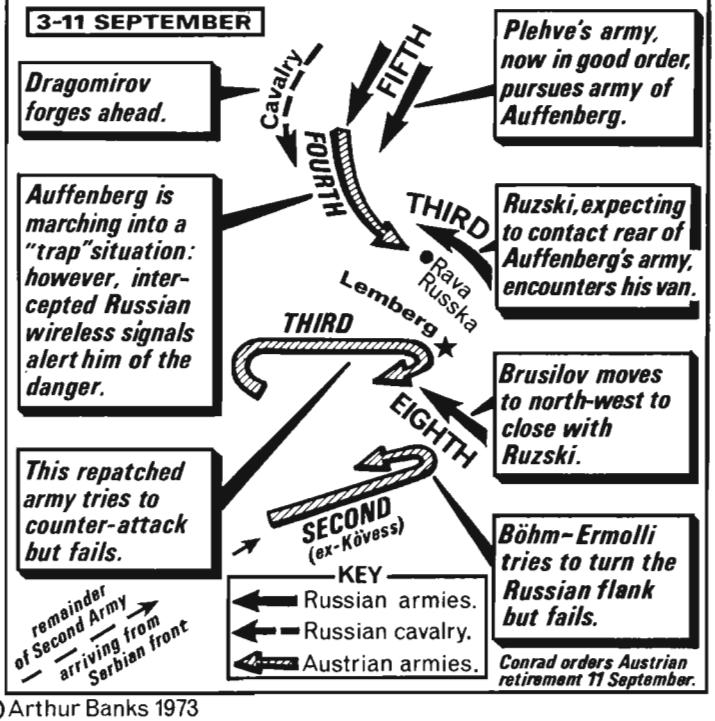



*The Austro-Hungarian armies were multi-racial: the graph below gives a broad guide to their heterogenous make-up.*




## ❷ The Overall Scene in Outline

3-11 SEPTEMBER



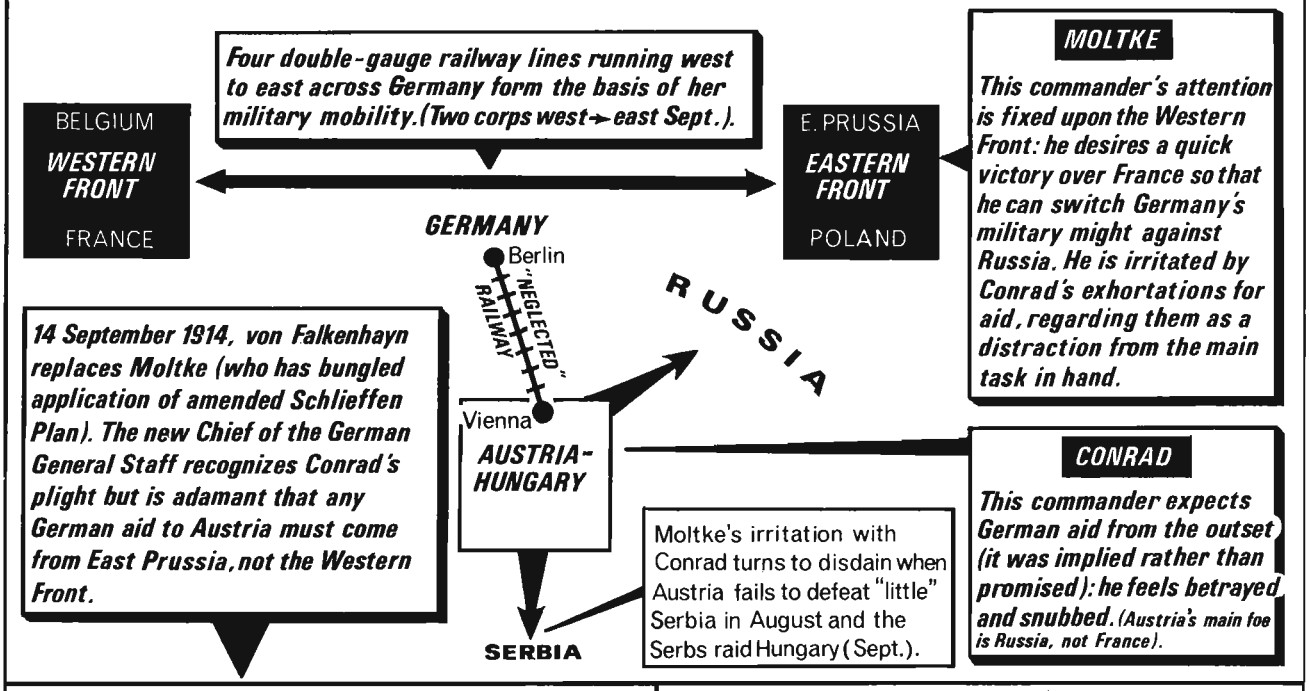

## ❸ The Austrian Retreat

11 SEPT.-3 OCT.

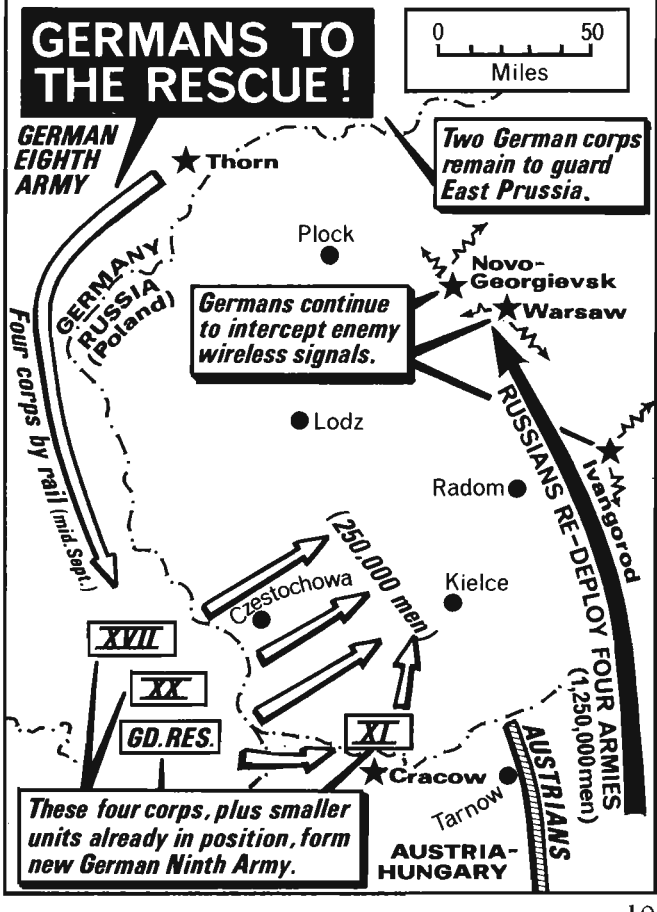



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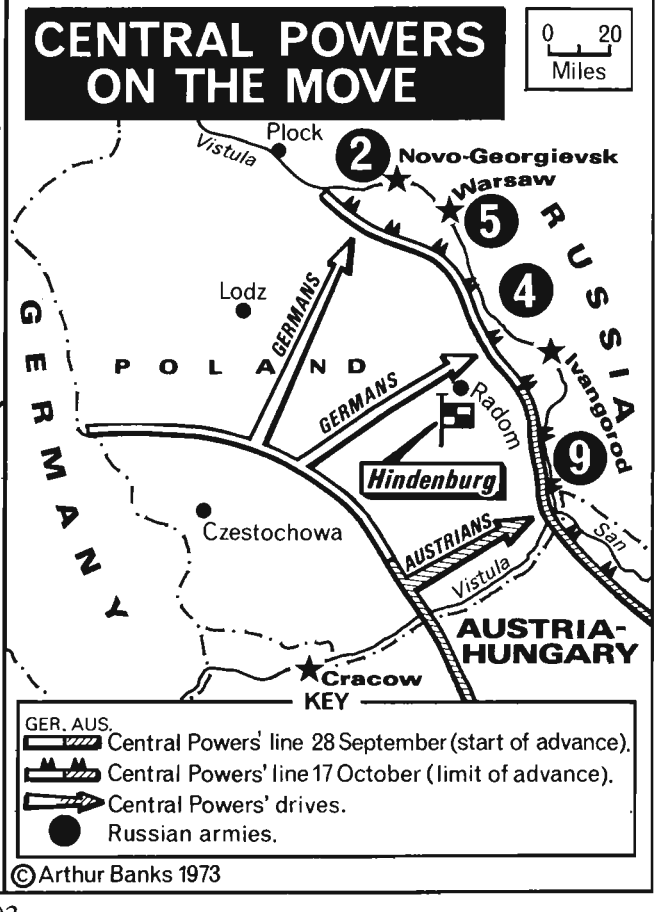
# THE DISCORDANT VIEWS OF CONRAD & MOLTKE




## GERMANS TO THE RESCUE!

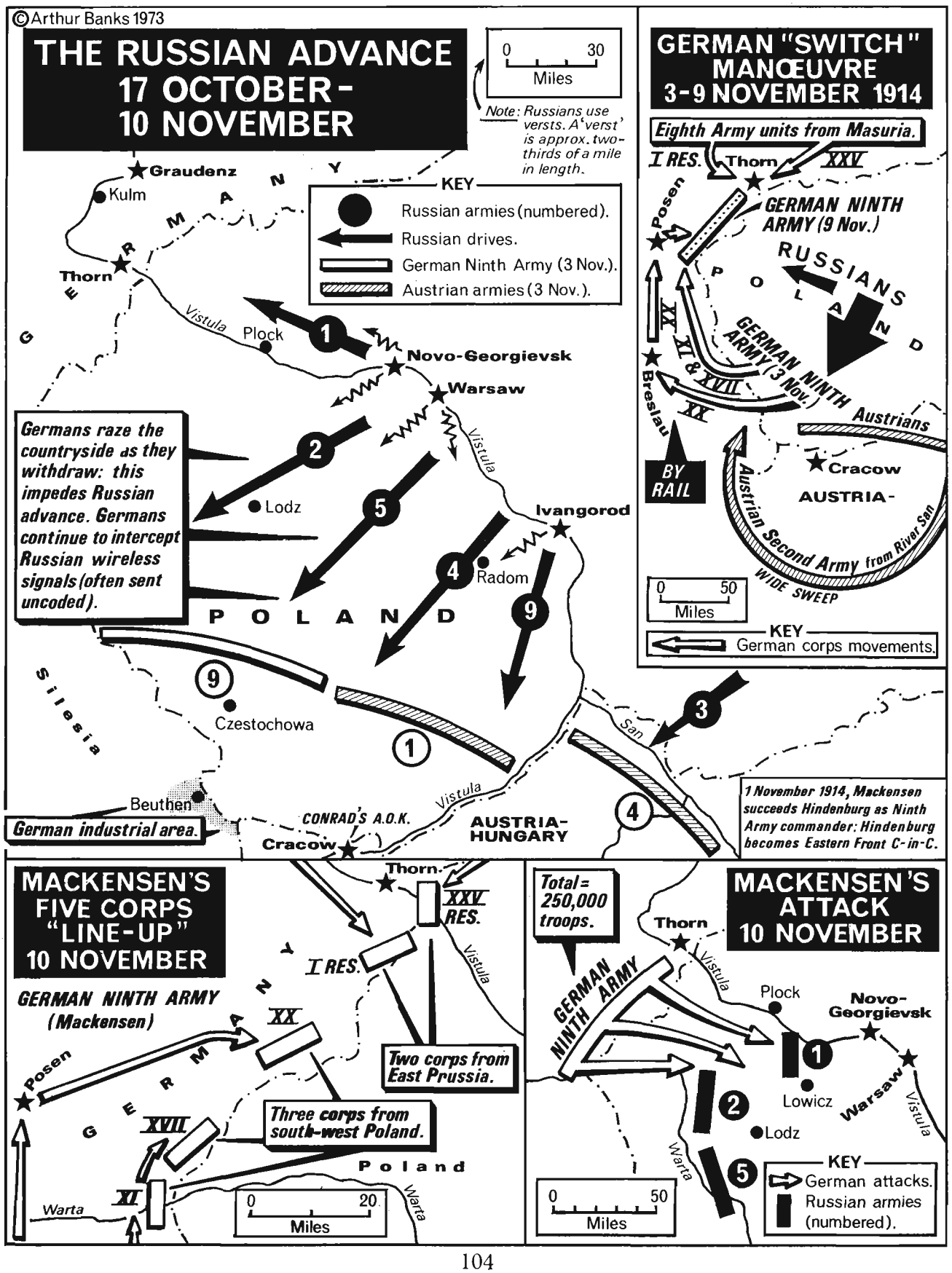


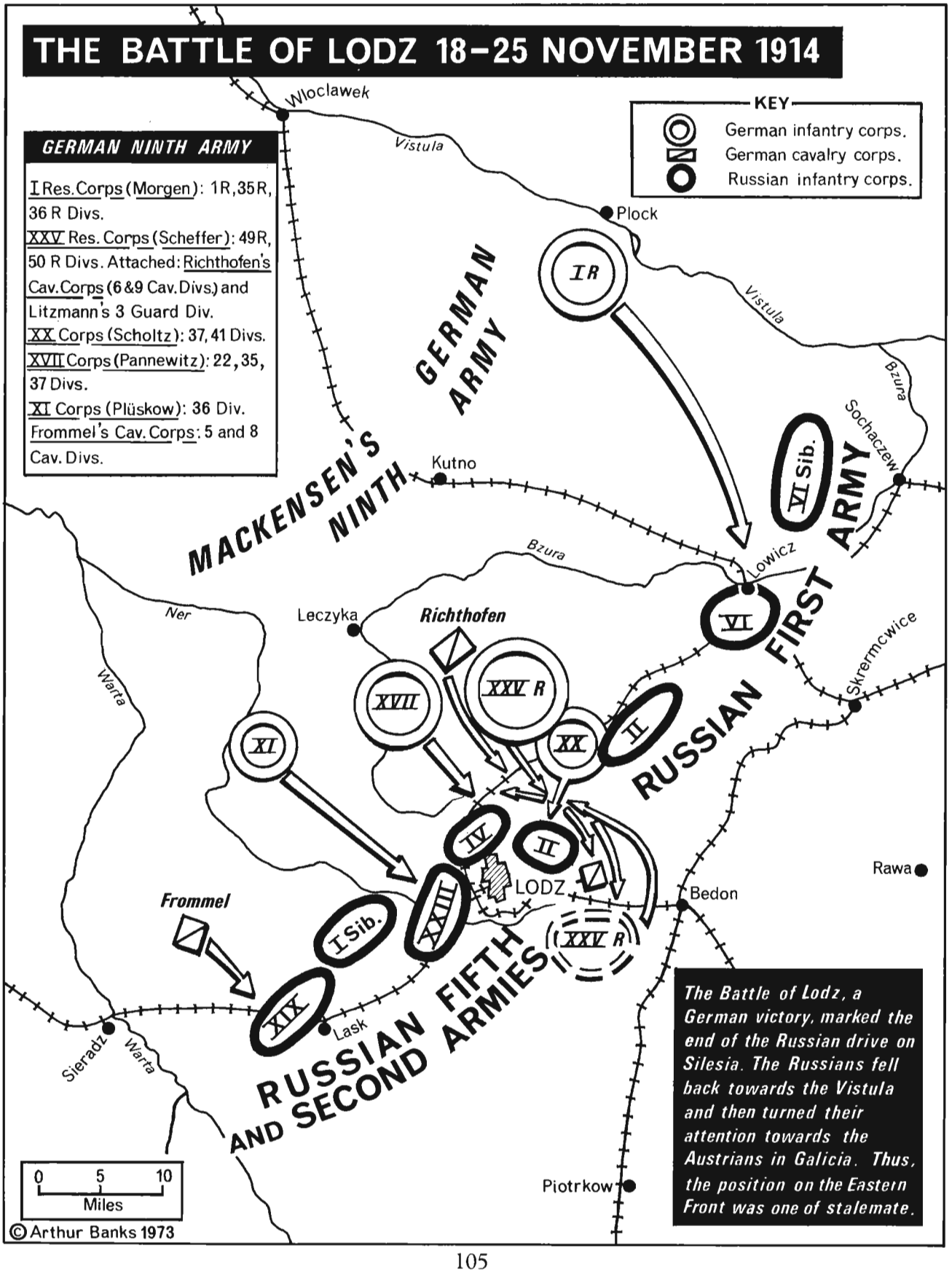

## CENTRAL POWERS ON THE MOVE




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THE BATTLE OF LODZ 18–25 NOVEMBER 1914
KEY
German infantry corps.
German cavalry corps.
Russian infantry corps.
GERMAN NINTH ARMY
I Res. Corps (Morgen): 1R, 35R, 36 R Divs.
XXV Res. Corps (Scheffer): 49R, 50 R Divs. Attached: Richthofen's Cav. Corps (6 & 9 Cav. Divs.) and Litzmann's 3 Guard Div.
XX Corps (Scholtz): 37, 41 Divs.
XVII Corps (Pannewitz): 22, 35, 37 Divs.
XI Corps (Plüskow): 36 Div.
Frommel's Cav. Corps: 5 and 8 Cav. Divs.
Wloclawek
Vistula
Plock
Vistula
Bzura
Sochaczew
GERMAN ARMY
MACKENSEN'S NINTH
Kutno
Bzura
Lowicz
FIRST RUSSIAN ARMY
Ner
Leczyka
Richthofen
Warta
Skrermcwice
Rawa
LODZ
Bedon
Frommel
Lask
Sieradz
Warta
RUSSIAN FIFTH AND SECOND ARMIES
Piotrkow
0 5 10
Miles
© Arthur Banks 1973
The Battle of Lodz, a German victory, marked the end of the Russian drive on Silesia. The Russians fell back towards the Vistula and then turned their attention towards the Austrians in Galicia. Thus, the position on the Eastern Front was one of stalemate.

# THE EUROPEAN MILITARY SITUATION 30 NOVEMBER 1914

0 200 Miles

KEY

- The Entente Powers and associates on 30 November 1914.
- The Central Powers on 30 November 1914. *Note: Britain declared war on Turkey on 5 November 1914.*
- Neutral states on 30 November 1914.
- The Western and Eastern fronts on 30 November 1914.

NORWAY
CHRISTIANIA
SWEDEN
Gulf of Bothnia
FINLAND
PETROGRAD
Gulf of Finland
Reval
STOCKHOLM
Skagerrak
Kattegat
COPENHAGEN
DENMARK
Riga
Moscow
Libau
BALTIC SEA
Smolensk
NORTH SEA
Kovno
Vilna
Gumbinnen
Königsberg
Minsk
Kiel Canal
HELIGOLAND
Danzig
Tannenberg
Grodno
R U S S I A
Kiel
Hamburg
Brest-Litovsk
Bremen
Elbe
Vistula
THE HAGUE
Amsterdam
BERLIN
Posen
Warsaw
Lodz
POLAND
Kiev
Antwerp
BRUSSELS
BELGIUM
Liége
Rhine
GERMANY
Oder
Dresden
Dnieper
Lemberg
Frankfurt
LUX.
Prague
Rouen
Aisne
Brest
PARIS
Marne
Seine
Dniester
Pressburg
Tisza
Odessa
Munich
Danube
VIENNA
Pruth
Budapest
Loire
Belfort
BERNE
SWITZ.
Innsbruck
AUSTRIA-HUNGARY
Bay of Biscay
FRANCE
Trieste
Drava
Venice
Milan
Sava
Bordeaux
Po
Turin
Genoa
Ariège
Marseilles
ADRIATIC SEA
Florence
ITALY
SERBIA
ALBANIA
SPAIN
CORSICA
ROME
MONTE-NEGRO
Barcelona
Salonika
Brindisi
BALEARIC ISLANDS
Naples
SARDINIA
TYRRHENIAN SEA
GREECE
ATHENS
AEGEAN SEA
Smyrna
IONIAN SEA
MEDITERRANEAN
Palermo
Messina
Bizerta
SICILY
SEA
RHODES
CYPRUS
Oran
ALGIERS
Bone
TUNIS
CRETE
BLACK SEA
CONSTANTINOPLE
Angora
OTTOMAN EMPIRE [TURKEY]
Dardanelles
RUMANIA
BUCHAREST
BULGARIA
SOFIA
BELGRADE
Danube

**2 August, occupied by Germans.**

**29 November, vacated by Serbs.**

**Frontier operations.**

**5 November, annexed by Britain.**

ATLANTIC OCEAN
English Channel

*Towards the end of November 1914 the initial energetic thrusts of the Central Powers had exhausted themselves. After four months of activity (the Central Powers meeting with determined resistance on both the Eastern and Western Fronts), the war had reached a position of stalemate. This map depicts the "de facto" situation that existed at this stage of operations. As opposed to large-scale movements, the campaign settled into a localised trench-warfare situation, each side testing the other, rather than initiating a definite major advance. Consequently the mobile war switched to other areas (e.g. the war at sea, in the air, the Dardanelles, Mesopotamia, etc.) in the hope of achieving "side-show" breakthroughs that would affect the main battle fronts.*

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# THE SITUATION AT THE END OF THE YEAR 1914

By the end of the year 1914 there was deadlock over every battlefront in Europe. From the Swiss frontier northwards fortified lines ran by way of the Vosges, the hills of the Meuse, the Argonne and the Chemin des Dames to the Aisne and up to Armentières and the Ypres Salient, reaching down to the inundated fields around Dixmude and so to the sand dunes of the North Sea. A tenth of metropolitan France, including the main French coalfields, and almost the whole of Belgium were behind the German trenches, and remained so throughout the war. The line of the Western Front did not move as much as ten miles in either direction for the following two and a half years. In the East, stalemate had come only through the onset of winter and there were no continuous systems of entrenchment to rule out a war movement. Yet there seemed little prospect of a decisive victory, and both sides had by now abandoned all hope of a short war.

Both the British and the German public were surprised by what was happening in the war at sea. After more than a decade of naval rivalry it was assumed there would be a naval battle between the great capital ships at an early date. But the Kaiser personally vetoed an engagement which might have destroyed his battle fleet until after the enemy fleet had been weakened by other means. The Germans accordingly made extensive use of their submarines (see page 246) and of minefields, although there was a sharp clash between cruisers and destroyers in Heligoland Bight at the end of August (see pages 242–245) and twice the German battle-cruisers took advantage of the long winter nights to cross the North Sea and bombard the East coast of England (see page 255). It was accepted in Britain that the days of isolation were over, a point emphasised on Christmas Eve when the first aerial bombs were dropped on English soil, at Dover.

The main clashes of sea power were, however, on the oceans. Vice-Admiral von Spee's squadron caused havoc in the Pacific and won a naval victory off Coronel before being defeated at the Falkland Islands early in December (pages 238, 240–241). The German cruiser *Emden* effectively disrupted trade in the East Indies (page 239), but by the end of the year, the British had reasserted their naval supremacy, clearing the seas of surface raiders and virtually destroying Germany's overseas commerce. Japanese, Australian and New Zealand forces mopped up Germany's island possessions in the Pacific, and British and Japanese troops occupied Kiaochow (the small German protectorate on the coast of China) in November. General von Lettow-Vorbeck retained firm control of German East Africa (pages 216–218) and the South Africans were in some difficulty in German South-West Africa but Togoland had surrendered and there was minimal resistance in the interior of the Cameroons.

The attention of the British outside Europe was from now on primarily concentrated on the Ottoman Empire. Turkey, long under the influence of Germany militarily, entered the War early in November, hoping to gain territory from Russia in the Caucasus and to recover, with German backing, her influence in the Balkans. The handing over by Germany to Turkey of the battle-cruiser *Goeben* and the cruiser *Breslau* (page 237) finally decided Turkey's course of action. Militarily Turkey was a distraction both to Britain and Russia, but her entry into the war suggested a possible alternative strategy—of toppling Germany, not on the main battlefronts, but by destroying her supports and entering Central Europe by the back door. It seemed the only way to make the war once more fluid. From such ideas developed the Dardanelles and Gallipoli campaigns, and belatedly the expedition to Salonika.

# THE GALLIPOLI CAMPAIGN

The attempt to force the Dardanelles and gain control of Constantinople and the Straits was the first strategically imaginative project of the war. Its origins lie in a proposal made by Churchill to the War Council of 25 November 1914. He argued that 'the ideal method of defending Egypt' and the Suez Canal from an invading Turkish army 'was by an attack on the Gallipoli Peninsula' which, if successful, would enable the Allies to 'dictate terms at Constantinople'. Subsequently the possibilities of using British naval power to open up a new front against the enemy appealed to other members of the War Council, including Lloyd George, Admiral Sir John Fisher and the Secretary of the Council, Colonel Hankey. There was much debate over the best place for a landing, Lloyd George urging the occupation of Salonika and the transportation by rail of an army to aid Serbia against Austria-Hungary, and this plan was favoured by two leading French Generals, Gallieni and Franchet d'Espèrey. The Dardanelles project had, however, three major advantages: it appeared to be primarily a naval operation; it would rally Turkey's traditional enemies among the Balkan nations to the Allied side; and it would open up a short warm-water route for supplies to Russia. It was this third consideration which was decisive: for at the end of December gloomy reports were received from Petrograd, indicating an acute shortage of munitions and appealing for British help in relieving Turkish pressure on the Russian armies in the Caucasus. The War Council agreed on a naval expedition 'with Constantinople as its objective' on 15 January 1915.

The Gallipoli enterprise falls into four distinctive phases (which may be studied in pages 110–129, supplemented for naval and submaritime operations by pages 252–254). Naval bombardments on 19 and 26 February were followed by nearly three weeks of abortive minesweeping before the principal attempt by capital ships to force the passage of the Dardanelles on 18 March. Preparations were then made for using British, Australian and New Zealand troops for a series of landings on the Gallipoli peninsula while a French army corps temporarily occupied Kum Kale on the mainland and made a feint assault on Besika Bay. These landings were carried out on 25 April in an atmosphere of almost crusading ardour, but without proper landing craft and with no real training in amphibious operations. The Anzacs established themselves in a cove of steep cliffs and backed by a gorge covered in scrub, where it was difficult to penetrate more than half a mile inland. The British made more headway at Cape Helles, but suffered appalling casualties. Further landings in early August came near to success, but by the end of the summer the troops on the peninsula were as effectively pinned down in a network of trenches as the armies in France and Flanders; four thousand men died in seeking to secure four hundred yards on a mile front. Kitchener went out to investigate in November and accepted the inevitability of evacuation. The final phase, the withdrawal from Anzac and Suvla in December and from Helles a fortnight later, was the most successful aspect of the campaign.

The expedition failed because of confused leadership, insufficient co-ordination, inadequate planning, and sheer lack of troops and firepower; perhaps, too, it failed because the landings were made at the tip of the peninsula rather than at its neck, where there would have been greater freedom of manouvere. Failure at the Dardanelles cost Churchill his predominant position in the War Council; it deprived the Allies of a grand Balkan alliance against Berlin; above all, it completed the isolation of Russia. Gallipoli, with its high hopes twice nearly realised, was a tragic disappointment which discredited imaginative strategic thought in London for many years ahead.

# TURKISH DEFENCES AT THE DARDANELLES 1915

***This map depicts the Turkish defences guarding the Dardanelles prior to the Allied naval attacks during February and March 1915. Following a Russian request to the Western Allies at the end of 1914 for a "second front" to be created against Turkey to ease pressure on the Russian forces in the Caucasus, British naval authorities devised a three-point plan to force the Dardanelles passage. First, a naval bombardment of the entrance forts; secondly, a minefield-clearing operation; thirdly, a naval force to sail right through the Dardanelles to the Sea of Marmara, and thence on to the Turkish capital of Constantinople.***

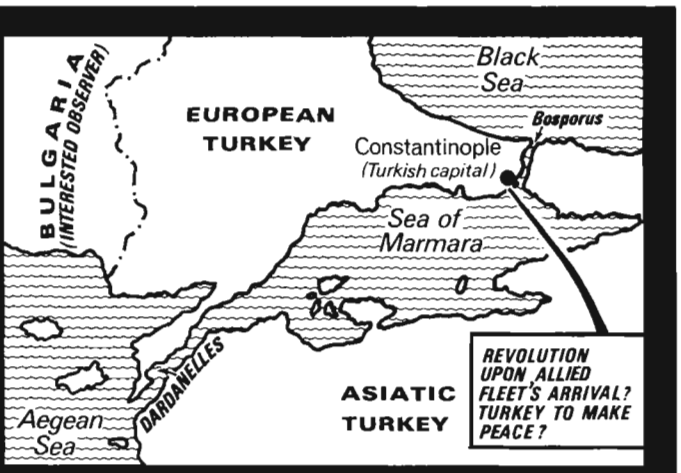
Vice-Admiral Carden, commander of the British squadron in the Aegean, considered that he would require the following units to successfully force the Dardanelles passage: 12 battleships, 3 battlecruisers, 3 light cruisers, 16 destroyers, 6 submarines, 4 seaplanes, 12 minesweepers, and a plentiful supply of ammunition.

**KEY TO MINEFIELDS**

1. 26 February 1915.
3. 5 November 1914 - 19 February 1915.
4. 5 November 1914 - 15 February 1915.
7. 5 November 1914 - 15 February 1915.
8. 5 November 1914 - 19 February 1915.
11. 8 March 1915 (laid by 'Nousret').

*Note: The correct name for Achi Baba was Alchi Tepe; this was due to a spelling error on British maps, but Achi Baba became the accepted name.*

*Note: spellings are those used on British maps in 1915. For example,* Chanak Kale *is used instead of the Turkish name* Çanakkale. *The modern romanized spelling of Turkish was not introduced until 1925; prior to that, Turkish map names were shown in Arabic characters.*




KOJA CHEMEN TEPE (971 ft.)
BESIM TEPE (900 ft.)
CHUNUK BAIR (850 ft.)
Sari Bair Ridge

Ari Burnu
Boghali
Koja Dere
Entrance to Sea of Marmara
Gaba Tepe
Maidos
Abydos Pt.
Nagara Burnu
Nagara
THE NARROWS
Dernia Burnu
Kilid Bahr
Chemenlik Fort
Anodalu Mejidieh
Medjidieh Avan
Chanak Kale
Namazieh
Hamidieh II
Rumili Medjidieh
Yildiz
Hauslar
Kum Burnu
Hamidieh
Sari Tepe
Suandere (Nth.)
Suandere (West)
Suandere
Suandere (Sth.)
Mull Zaffer
Messudieh
Kephez Pt.
SARI SIGHLAR BAY
Kephez
Kephez Lighthouse
Kephez
Kephez Bay
Dardanos
Kalabakli
Karie
Messudieh (Ak Tepe)
Djevad Pasha
Kusukeui
Karantina
Chamlik
Koja Dere
Krithia
ACHI BABA (709 feet)
Tenkir Dere (North)
Tenkir Dere (Sth.)
Chomak Tenkir Dere
Chomak Dere
Kereves Dere
Tekke Burnu
Helles
Cape Helles
Morto Bay
Sedd el Bahr
DARDANELLES
AEGEAN SEA
Kum Burnu
Kum Kale
EREN KEUI BAY
Toptash Burnu
Eren Keui
Orkanie
In Tepe
Yeni Shehr
Khalil Eli Keui
Yeni Keui

53 mines
29 mines
26 mines
39 mines
47 mines
38 mines
50 mines
48 mines
16 mines
29 mines
20 mines (GERMAN 'CARBONIT'-TYPE, NOT TURKISH 'RAMIS'-TYPE AS OFTEN SUPPOSED)

**Six 24-cm. L/22 Krupp**
**One 28-cm. L/22 Krupp**
**One 26-cm. L/22 Krupp**
**Nine 24-cm. L/22 Krupp**
**Two 24-cm. L/35 Krupp**
**Three 21-cm. L/22 Krupp**
**Three 15-cm. howitzers**
**Two 35·5-cm. L/35 Krupp**
**Two 28-cm. L/22 Krupp**
**Four 24-cm. L/35 Krupp**
**Six 15-cm. L/26 Krupp**
**Six 4·7-cm. howitzers**
**Four 12-cm. siege guns**
**Four 7·5-cm. L/30 quick-firers**
**Three 10·5-cm. L/45 naval quick-firers**
**Three 15-cm. L/45 quick-firers**
**Four 12-cm. siege guns**
**Four 8·8-cm. L/30 naval quick-firers**
**Four 12-cm. howitzers**
**Four 12-cm. howitzers**
**Four 21-cm. howitzers**
**Six 15-cm. mortars**
**Six 21-cm. howitzers**
**Two 24-cm. L/35 Krupp**
**Six 15-cm. howitzers**
**Two 28-cm. L/22 Krupp**
**Two 26-cm. L/22 Krupp**
**Two 24-cm. L/22 Krupp**
**Four 8·8-cm. quick-firers**
**Four 15-cm. howitzers**
**Two 24-cm. L/35 Krupp**
**Two 28-cm. L/22 Krupp**
**Two 26-cm. L/22 Krupp**
**Two 24-cm. L/22 Krupp**
**One 21-cm. L/22 Krupp**
**One 15-cm. L/22 Krupp**
**One 15-cm. L/40 Krupp**
**Two 26-cm. L/22 Krupp**
**Five 24-cm. L/22 Krupp**
**Five 15-cm. L/26 Krupp**
**Three 28-cm. L/22 Krupp**
**Four 26-cm. L/22 Krupp**
**Two 24-cm. L/22 Krupp**
**Two 21-cm. L/22 Krupp**
**Three 15-cm. L/22 Krupp**
**Six 21-cm. mortars**
**One 35·5-cm. L/35 Krupp**
**One 35·5-cm. L/22 Krupp**
**One 24-cm. L/35 Krupp**
**One 21-cm. L/35 Krupp**
**Four 15-cm. howitzers**
**Two 35·5-cm. L/35 Krupp**
**Seven 24-cm. L/35 Krupp**
**Three 7·5-cm. L/40 quick-firers**
**Three 5·7-cm. L/40 quick-firers**
**Four 8·7-cm. field guns**
**Five 15-cm. L/40 quick-firers**
**Four 7·5-cm. quick-firing Vickers guns**
**Six 5·7-cm. quick-firing Vickers guns**
**Four 7·5-cm. field guns**
**Three 15-cm. L/26 Krupp**
**Four 21-cm. mortars**
**Four 15-cm. howitzers**
**Four 15-cm. howitzers**
**Four 21-cm. howitzers**
**Four 15-cm. howitzers**

**KEY**

- Forts (medieval masonry works).
- Main batteries (in concrete and revetted with earth).
- Minefield batteries.
- Mobile batteries.
- S / M — Searchlights (S indicates stationary and M indicates mobile).
- ..... — Minefields (numbered) showing total of mines laid (for dates see separate key). 2 5 6 9 and 10 were already in position at declaration of war on 5 November 1914.
- Anti-submarine defence net (note: laid in July).
- (T) — Three 18-inch torpedo-tubes (installed in January).
- Important observation posts and signalling points.

0 1 2 Miles

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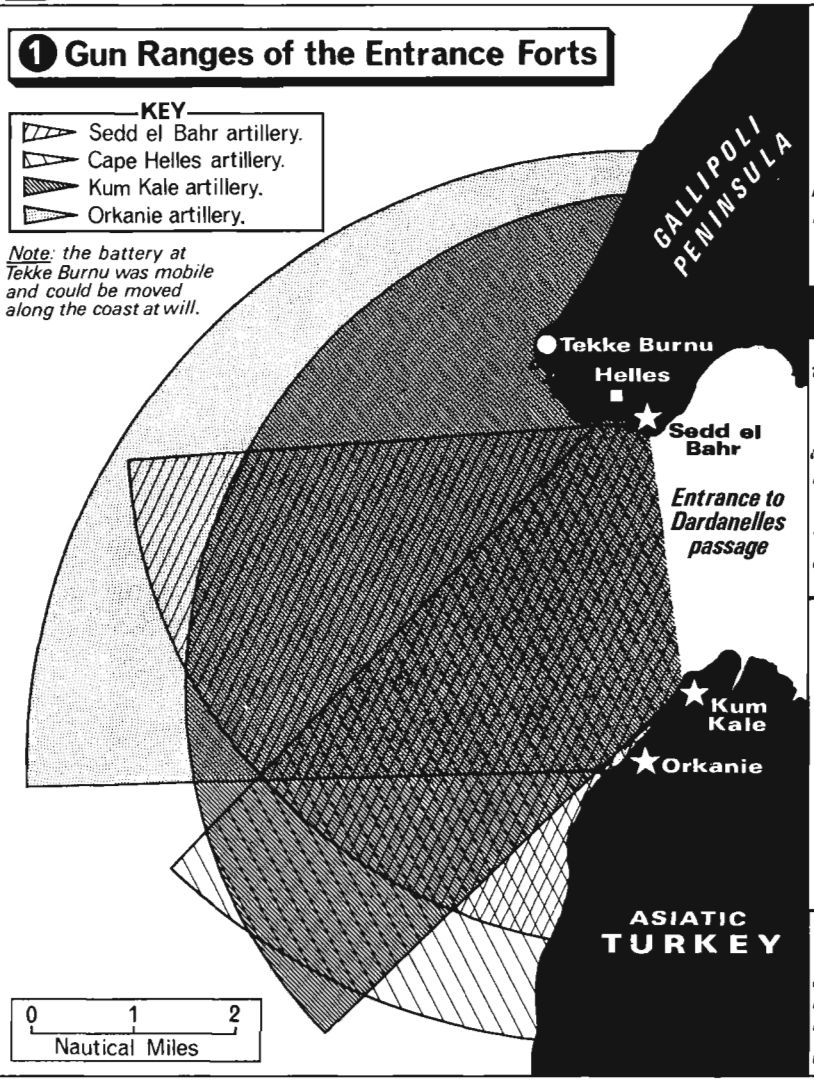
# *FIRST NAVAL BOMBARDMENT OF THE DARDANELLES ENTRANCE WORKS 19 FEBRUARY 1915

*Note: on 3 November 1914, four Allied warships had bombarded Sedd el Bahr and Kum Kale using 12-inch guns.

**GUN RANGES OF TURKISH ENTRANCE WORKS**

Allied estimated maximum ranges of the main guns:
*L/35*.....12,000 yards
*L/22*.....10,000 yards
(effective ranges rather less)

## 1 Gun Ranges of the Entrance Forts




**NOTES ON GUN CALIBRES**

| | | |
|---|---|---|
| *L/35* | *24-cm. Krupp* | *9·4-inch* |
| *L/22* | *28-cm. Krupp* | *11-inch* |
| *L/22* | *26-cm. Krupp* | *10·2-inch* |
| *L/22* | *24-cm. Krupp* | *9·4-inch* |
| *L/22* | *21-cm. Krupp* | *8·2-inch* |
| *L/22* | *15-cm. Krupp* | *5·9-inch* |
| *L/40* | *15-cm.* | *5·9-inch* |
| *12-cm. howitzer* | | *4·7-inch* |
| *8·8-cm. quick-firer* | | *3·4-inch* |

## MAIN ALLIED NAVAL ORGANISATION

**FIRST DIVISION (British)**
'Inflexible' *(flagship)*; 'Agamemnon', and 'Queen Elizabeth' *(both en route from Malta)*

**SECOND DIVISION (British)**
'Vengeance' *(flagship)*; 'Albion', 'Cornwallis', 'Irresistible', 'Triumph'.

**THIRD DIVISION (French)**
'Suffren' *(flagship)*; 'Bouvet', 'Charlemagne', 'Gaulois'.

## THE ALLIED PLAN

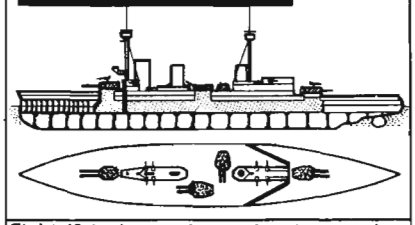
1. **Long-range bombardment.** (This stage commenced at 0951 hours).
2. **Medium-range bombardment.** (This stage commenced at 1400 hours).
3. **Short-range bombardment.** (This stage never materialised).

*Note: Main armament of warships to be employed for Stage 1, secondary armament for Stage 2, and main armament again for Stage 3 (to completely obliterate the forts and defence remnants, if any).*

## TARGETS OF SHIPS (STAGE ONE)

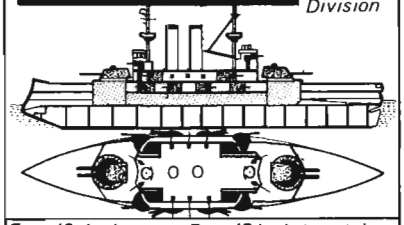
'Inflexible' → Sedd el Bahr
'Triumph' → Helles
'Cornwallis' → Orkanie
'Suffren' → Kum Kale
*('Bouvet' spotting; 'Gaulois' patrolling off Besika Bay)*

**British battlecruiser HMS "INFLEXIBLE"** *flagship First Division*



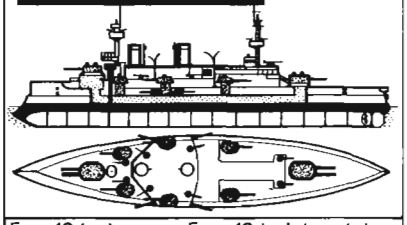
Eight 12-inch guns. Three 18-inch torp. tubes. Sixteen 4-inch guns. Max. speed 29 knots.

**British battleship HMS "VENGEANCE"** *flagship Second Division*



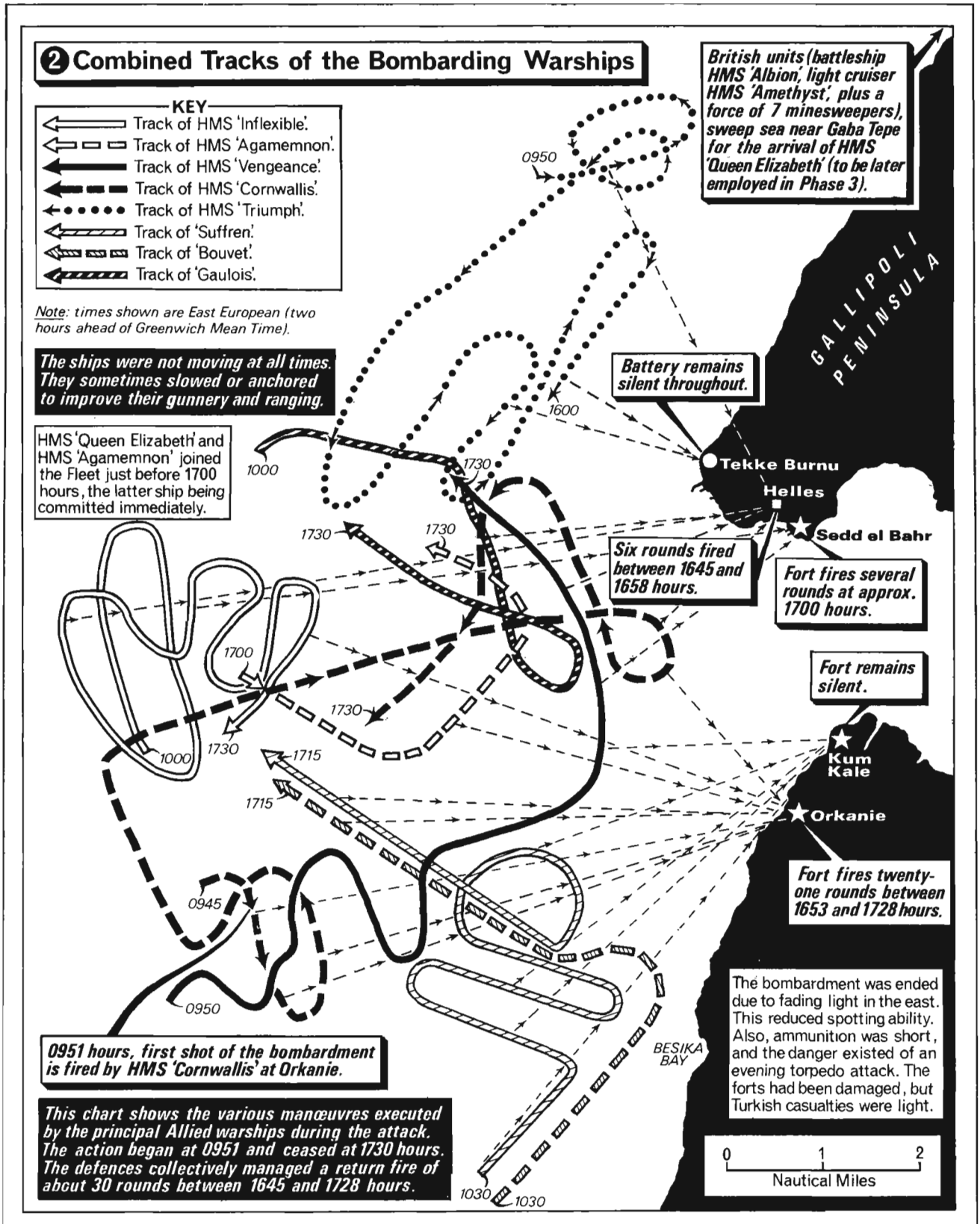
Four 12-inch guns. Four 18-inch torp. tubes. Twelve 6-inch guns. Max. speed 18 knots.

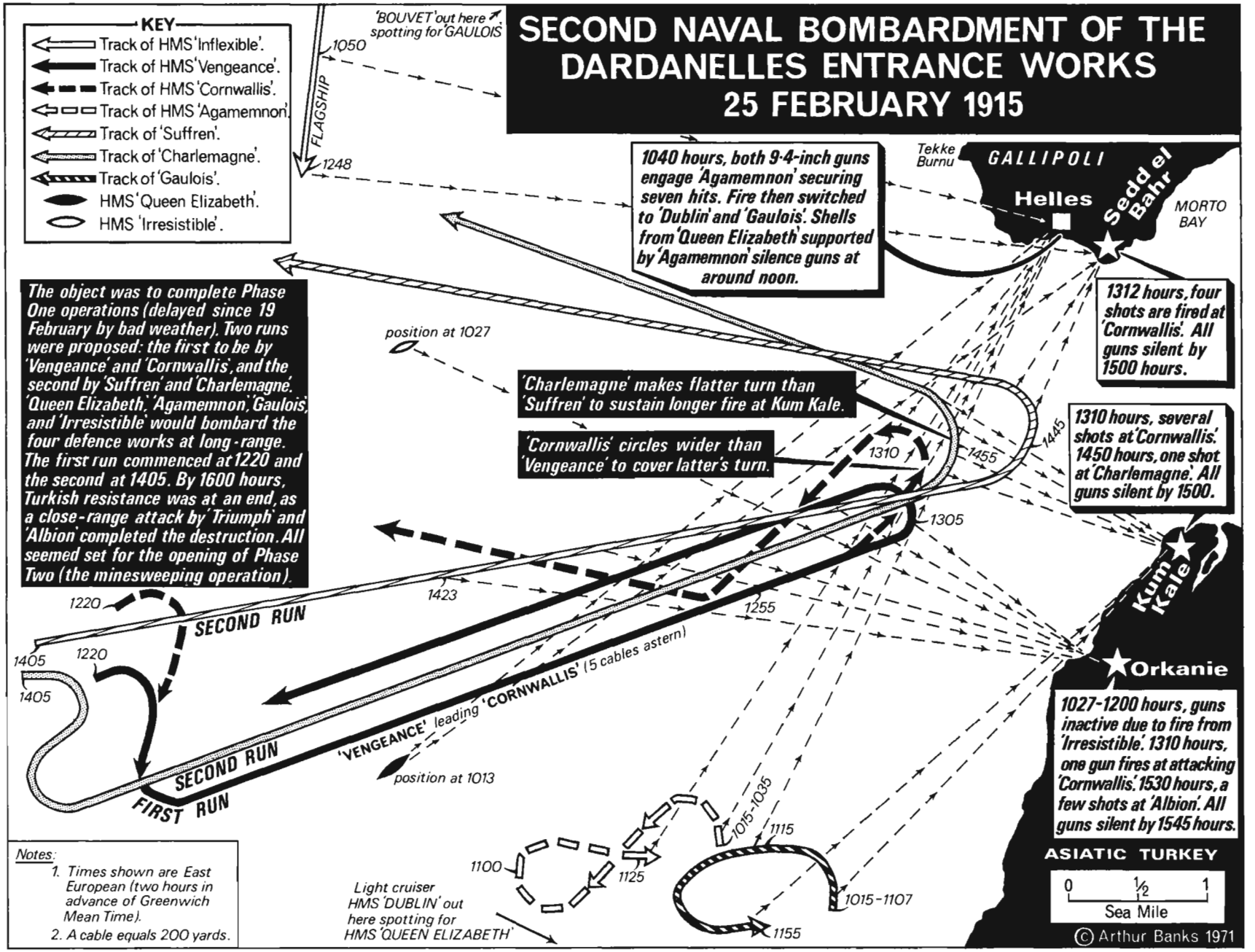
**French battleship "SUFFREN"** *flagship Third Division*



Four 12-inch guns. Four 18-inch torp. tubes. Ten 6·4-inch guns. Max. speed 16 knots.

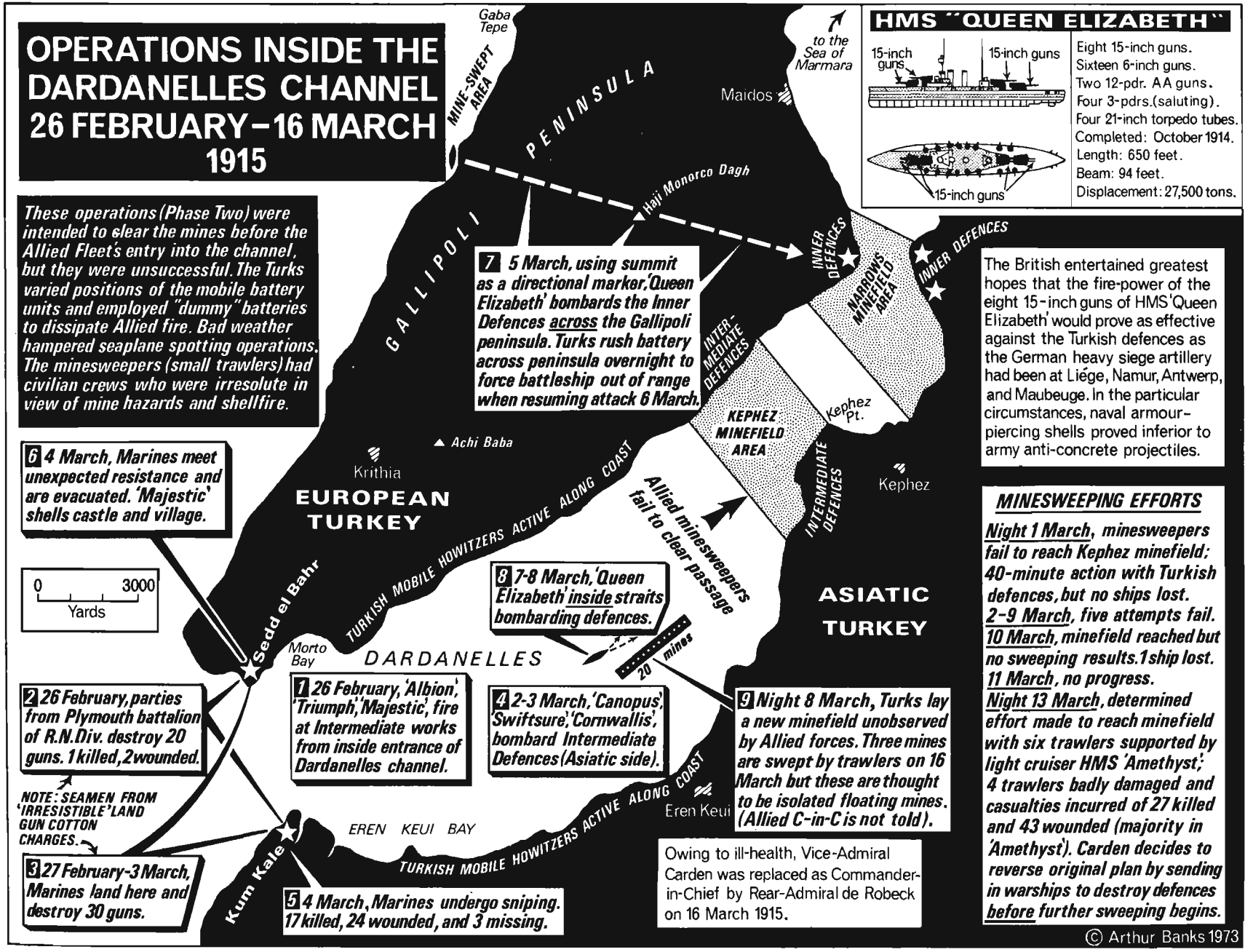
© Arthur Banks 1973


2 Combined Tracks of the Bombarding Warships
KEY
Track of HMS 'Inflexible'.
Track of HMS 'Agamemnon'.
Track of HMS 'Vengeance'.
Track of HMS 'Cornwallis'.
Track of HMS 'Triumph'.
Track of 'Suffren'.
Track of 'Bouvet'.
Track of 'Gaulois'.
Note: times shown are East European (two hours ahead of Greenwich Mean Time).
The ships were not moving at all times. They sometimes slowed or anchored to improve their gunnery and ranging.
HMS 'Queen Elizabeth' and HMS 'Agamemnon' joined the Fleet just before 1700 hours, the latter ship being committed immediately.
British units (battleship HMS 'Albion', light cruiser HMS 'Amethyst', plus a force of 7 minesweepers), sweep sea near Gaba Tepe for the arrival of HMS 'Queen Elizabeth' (to be later employed in Phase 3).
GALLIPOLI PENINSULA
Battery remains silent throughout.
Tekke Burnu
Helles
Sedd el Bahr
Six rounds fired between 1645 and 1658 hours.
Fort fires several rounds at approx. 1700 hours.
Fort remains silent.
Kum Kale
Orkanie
Fort fires twenty-one rounds between 1653 and 1728 hours.
0950
1600
1000
1730
1700
1715
0945
BESIKA BAY
1030
0951 hours, first shot of the bombardment is fired by HMS 'Cornwallis' at Orkanie.
This chart shows the various manœuvres executed by the principal Allied warships during the attack. The action began at 0951 and ceased at 1730 hours. The defences collectively managed a return fire of about 30 rounds between 1645 and 1728 hours.
The bombardment was ended due to fading light in the east. This reduced spotting ability. Also, ammunition was short, and the danger existed of an evening torpedo attack. The forts had been damaged, but Turkish casualties were light.
0 1 2
Nautical Miles


SECOND NAVAL BOMBARDMENT OF THE DARDANELLES ENTRANCE WORKS
25 FEBRUARY 1915
KEY
Track of HMS 'Inflexible'.
Track of HMS 'Vengeance'.
Track of HMS 'Cornwallis'.
Track of HMS 'Agamemnon'.
Track of 'Suffren'.
Track of 'Charlemagne'.
Track of 'Gaulois'.
HMS 'Queen Elizabeth'.
HMS 'Irresistible'.
'BOUVET' out here spotting for 'GAULOIS'
1050
FLAGSHIP
1248
1040 hours, both 9·4-inch guns engage 'Agamemnon' securing seven hits. Fire then switched to 'Dublin' and 'Gaulois'. Shells from 'Queen Elizabeth' supported by 'Agamemnon' silence guns at around noon.
Tekke Burnu
GALLIPOLI
Helles
Sedd el Bahr
MORTO BAY
1312 hours, four shots are fired at 'Cornwallis'. All guns silent by 1500 hours.
The object was to complete Phase One operations (delayed since 19 February by bad weather). Two runs were proposed: the first to be by 'Vengeance' and 'Cornwallis', and the second by 'Suffren' and 'Charlemagne'. 'Queen Elizabeth', 'Agamemnon', 'Gaulois', and 'Irresistible' would bombard the four defence works at long-range. The first run commenced at 1220 and the second at 1405. By 1600 hours, Turkish resistance was at an end, as a close-range attack by 'Triumph' and 'Albion' completed the destruction. All seemed set for the opening of Phase Two (the minesweeping operation).
position at 1027
'Charlemagne' makes flatter turn than 'Suffren' to sustain longer fire at Kum Kale.
'Cornwallis' circles wider than 'Vengeance' to cover latter's turn.
1310
1455
1445
1310 hours, several shots at 'Cornwallis'. 1450 hours, one shot at 'Charlemagne'. All guns silent by 1500.
1305
Kum Kale
1220
SECOND RUN
1423
1255
1405
1220
1405
'VENGEANCE' leading 'CORNWALLIS' (5 cables astern)
Orkanie
1027-1200 hours, guns inactive due to fire from 'Irresistible'. 1310 hours, one gun fires at attacking 'Cornwallis'. 1530 hours, a few shots at 'Albion'. All guns silent by 1545 hours.
SECOND RUN
FIRST RUN
position at 1013
1015-1035
1115
1100
1125
1015-1107
1155
Light cruiser HMS 'DUBLIN' out here spotting for HMS 'QUEEN ELIZABETH'
ASIATIC TURKEY
0 ½ 1
Sea Mile
Notes:
1. Times shown are East European (two hours in advance of Greenwich Mean Time).
2. A cable equals 200 yards.
© Arthur Banks 1971

# OPERATIONS INSIDE THE DARDANELLES CHANNEL 26 FEBRUARY–16 MARCH 1915

*These operations (Phase Two) were intended to clear the mines before the Allied Fleet's entry into the channel, but they were unsuccessful. The Turks varied positions of the mobile battery units and employed "dummy" batteries to dissipate Allied fire. Bad weather hampered seaplane spotting operations. The minesweepers (small trawlers) had civilian crews who were irresolute in view of mine hazards and shellfire.*




**6** 4 March, Marines meet unexpected resistance and are evacuated. 'Majestic' shells castle and village.

**2** 26 February, parties from Plymouth battalion of R.N.Div. destroy 20 guns. 1 killed, 2 wounded.

NOTE: SEAMEN FROM 'IRRESISTIBLE' LAND GUN COTTON CHARGES.

**3** 27 February–3 March, Marines land here and destroy 30 guns.

**5** 4 March, Marines undergo sniping. 17 killed, 24 wounded, and 3 missing.

**7** 5 March, using summit as a directional marker, 'Queen Elizabeth' bombards the Inner Defences across the Gallipoli peninsula. Turks rush battery across peninsula overnight to force battleship out of range when resuming attack 6 March.

**8** 7-8 March, 'Queen Elizabeth' inside straits bombarding defences.

**1** 26 February, 'Albion', 'Triumph', 'Majestic', fire at Intermediate works from inside entrance of Dardanelles channel.

**4** 2-3 March, 'Canopus', 'Swiftsure', 'Cornwallis', bombard Intermediate Defences (Asiatic side).

**9** Night 8 March, Turks lay a new minefield unobserved by Allied forces. Three mines are swept by trawlers on 16 March but these are thought to be isolated floating mines. (Allied C-in-C is not told).

Owing to ill-health, Vice-Admiral Carden was replaced as Commander-in-Chief by Rear-Admiral de Robeck on 16 March 1915.

## HMS "QUEEN ELIZABETH"




Eight 15-inch guns.
Sixteen 6-inch guns.
Two 12-pdr. AA guns.
Four 3-pdrs.(saluting).
Four 21-inch torpedo tubes.
Completed: October 1914.
Length: 650 feet.
Beam: 94 feet.
Displacement: 27,500 tons.

The British entertained greatest hopes that the fire-power of the eight 15-inch guns of HMS 'Queen Elizabeth' would prove as effective against the Turkish defences as the German heavy siege artillery had been at Liége, Namur, Antwerp, and Maubeuge. In the particular circumstances, naval armour-piercing shells proved inferior to army anti-concrete projectiles.

## *MINESWEEPING EFFORTS*

***Night 1 March**, minesweepers fail to reach Kephez minefield; 40-minute action with Turkish defences, but no ships lost.*
***2–9 March**, five attempts fail.*
***10 March**, minefield reached but no sweeping results. 1 ship lost.*
***11 March**, no progress.*
***Night 13 March**, determined effort made to reach minefield with six trawlers supported by light cruiser HMS 'Amethyst'; 4 trawlers badly damaged and casualties incurred of 27 killed and 43 wounded (majority in 'Amethyst'). Carden decides to reverse original plan by sending in warships to destroy defences before further sweeping begins.*

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# THE ALLIED FAILURE TO FORCE THE DARDANELLES PASSAGE 18 MARCH 1915

*1030 hours, preceded by destroyers, the Allied fleet of 17 battleships and 1 battlecruiser entered the straits and advanced to allotted positions. Line 'A' opened fire at 1130 and Line 'B' was advanced at 1206. By 1345, the defences were inactive; consequently the minesweepers were ordered up supported by Second Division (to relieve Line 'B'). Moving out, 'Bouvet' was mined at 1355, then capsized and sank in two minutes. 1610 'Irresistible' was mined; 1614 'Inflexible' suffered a similar fate. At 1715 'Gaulois' was badly holed and had to beached. 1805 'Ocean' was mined and abandoned. Thus one-third of the capital ships were either sunk or incapacitated and the naval attempt to force the Dardanelles was called off. Prematurely? By 16 April, a British destroyer-minesweeping "fast" force was in existence ("Beagle"-class ships). This fact is not generally appreciated.*

The attack of 18 March was intended to break the stalemate situation of Phase Two in which the minesweeper crews were reluctant to pursue their operations until the capital ships had silenced the Turkish main batteries. The Allied plan allowed for the trawlers to begin sweeping operations two hours after start of the long-range bombardment, whereupon they were to clear a channel 900 yards broad past Kephez Point into Sari Sighlar Bay.
*(It should be noted that the Allied naval command was unaware of the full extent of the Turkish minefields despite detailed Intelligence reports which had not been passed on).*

***Prior to the attack, the Allies worried over the alleged existence of torpedo-tubes on both sides of the channel. In fact, there were only three tubes in position, all at Kilid Bahr. Each tube was equipped with two torpedoes, but only one tube could fire right across the width of the Narrows, the others less than halfway across.***

*Shellfire observation was to remain with seaplanes from HMS 'Ark Royal'; to eliminate danger from stray floating mines, each capital ship was attended by an armed picket boat; Royal Naval Division was to make a feint landing attack on western side of Gallipoli peninsula.*

KILID BAHR
Chemenlik Fort
CHANAK KALE
Namazieh
Hamidieh II
Rumili Medjidieh
Yildiz
Hamidieh I

***Noon, double explosion rocks fort as shell hits magazine.***

***Three torpedo tubes put out of action as shell hits pier.***

Turkish 'contact' mines were metal canisters filled with explosive. Sensitive horns protruded from the tops and, upon contacting a ship, these would be driven in to activate the detonating charges. Ropes with weights attached trailed beneath the mines, the length of rope setting depth below the surface.

SARI TEPE
KRITHIA
0 1 Mile
GALLIPOLI PENINSULA
MOBILE HOWITZERS ACTIVE ALONG COAST
INTERMEDIATE DEFENCES
Messudieh
NARROWS MINEFIELD (194 'contact' mines)
KEPHEZ MINEFIELD (181 'contact' mines)
1130-1206
1157-1206
1130-1157
Kephez Pt.
SARI SIGHLAR BAY
Dardanos
INTERMEDIATE DEFENCES
Tekke Burnu
Sedd el Bahr
Helles
Cape Helles
'Ocean' sinks here at 2230 hours.
LINE 'B' (ATTACKING)
LINE 'B' (TURNING)
LINE 'A'
LINE 'B' (STANDING BY)
LINE OF 17 MINES
'Irresistible' sinks here at 1930 hours.
'Irresistible' mined here.
'Inflexible' mined here.
'Ocean' mined here.
'Bouvet' mined here. Sinks in two minutes. 600 perish.
Held in reserve for minesweeping aid and support.
HELD IN RESERVE FOR FINAL CLOSE-RANGE BOMBARDING OPERATIONS
EREN KEUI
EREN KEUI BAY
Toptash Burnu
Kum Kale
MOBILE HOWITZERS ACTIVE ALONG COAST

## ALLIED NAVAL ORGANISATION

**FIRST DIVISION (Vice-Admiral de Robeck)**
1. HMS 'Queen Elizabeth' } FIRST SUB-DIVISION
2. HMS 'Inflexible' }
3. HMS 'Agamemnon' } SECOND SUB-DIVISION
4. HMS 'Lord Nelson' }

**SECOND DIVISION (Captain Hayes-Sadler)**
5. HMS 'Ocean' } THIRD SUB-DIVISION
6. HMS 'Irresistible' }
7. HMS 'Albion' }
8. HMS 'Vengeance' }
9. HMS 'Swiftsure' } FOURTH SUB-DIVISION
10. HMS 'Majestic' }
11. HMS 'Canopus' } FIFTH SUB-DIVISION
12. HMS 'Cornwallis' }

**THIRD DIVISION (Admiral Guépratte)**
13. 'Suffren' } SIXTH SUB-DIVISION
14. 'Bouvet' }
15. 'Gaulois' }
16. 'Charlemagne' }
17. HMS 'Triumph' } SEVENTH SUB-DIVISION
18. HMS 'Prince George' }

## AFTERMATH

***Despite pressure from a number of officers (e.g. Commodore Keyes) to persevere with the plan to force a naval passage, the Allies decided to concentrate upon an attempt to take the Gallipoli peninsula by military means (i.e. a land operation). To prepare for this, troops and transports were withdrawn from the Aegean and sent to Egypt: thus, the Turkish defenders gained a valuable respite.***

## ALLIED PLAN OF ATTACK

LINE 'A'
This consisted of the four ships of First Division. Stationed in line-abreast 14,000 yards from the Narrows, they would carry out the task of bombarding the Inner Defences at long range.

LINE 'B'
This consisted of the four ships of Third Division (Sixth Sub-Division). In line-abreast 16,000 yards from the Narrows, they would advance between Line 'A' and engage the strong Inner Defences at 8,000 yards range. Seventh Sub-Division ships would advance to 15,000 yards range and protect the flanks of First Division.

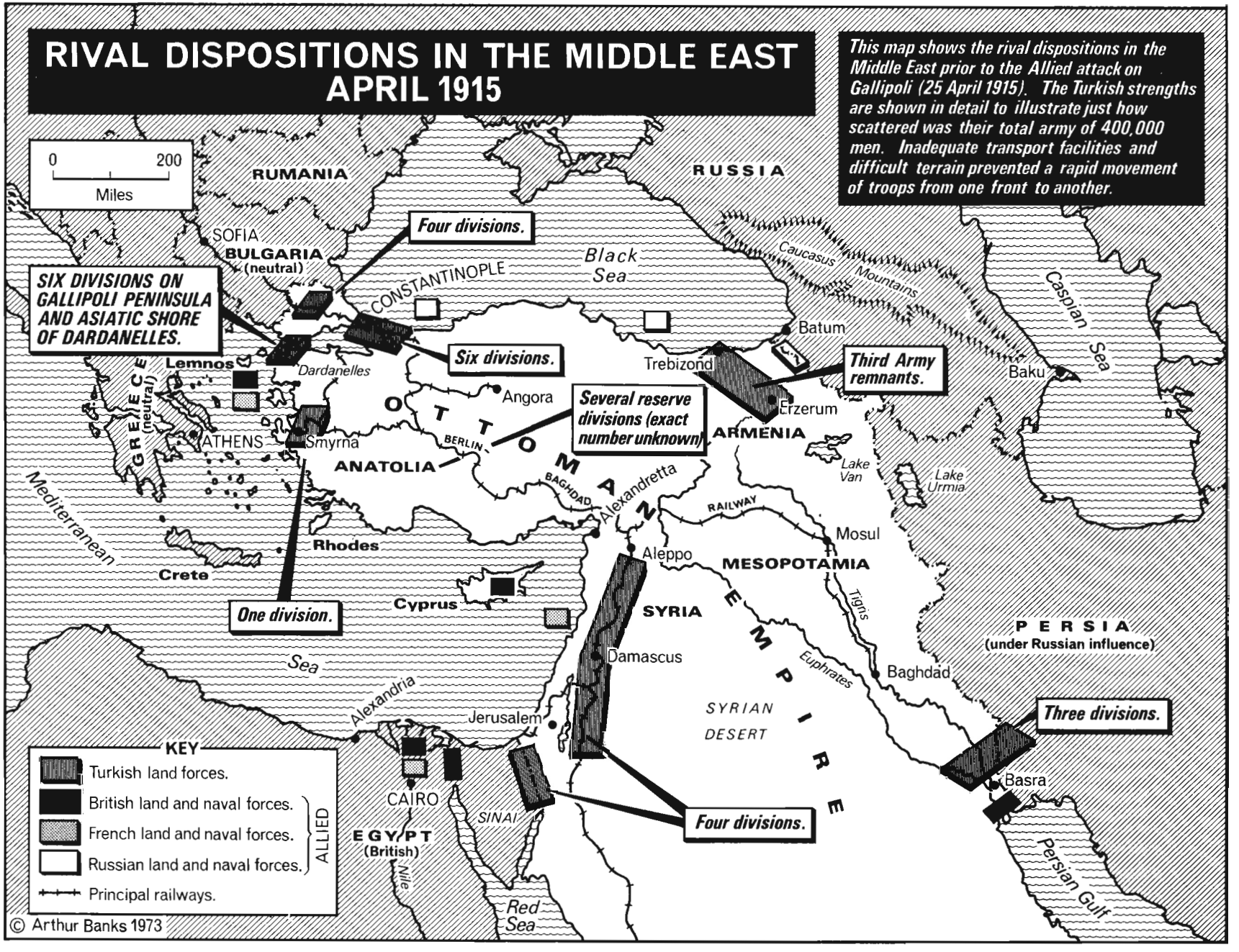
## ALTERNATIVE PLAN

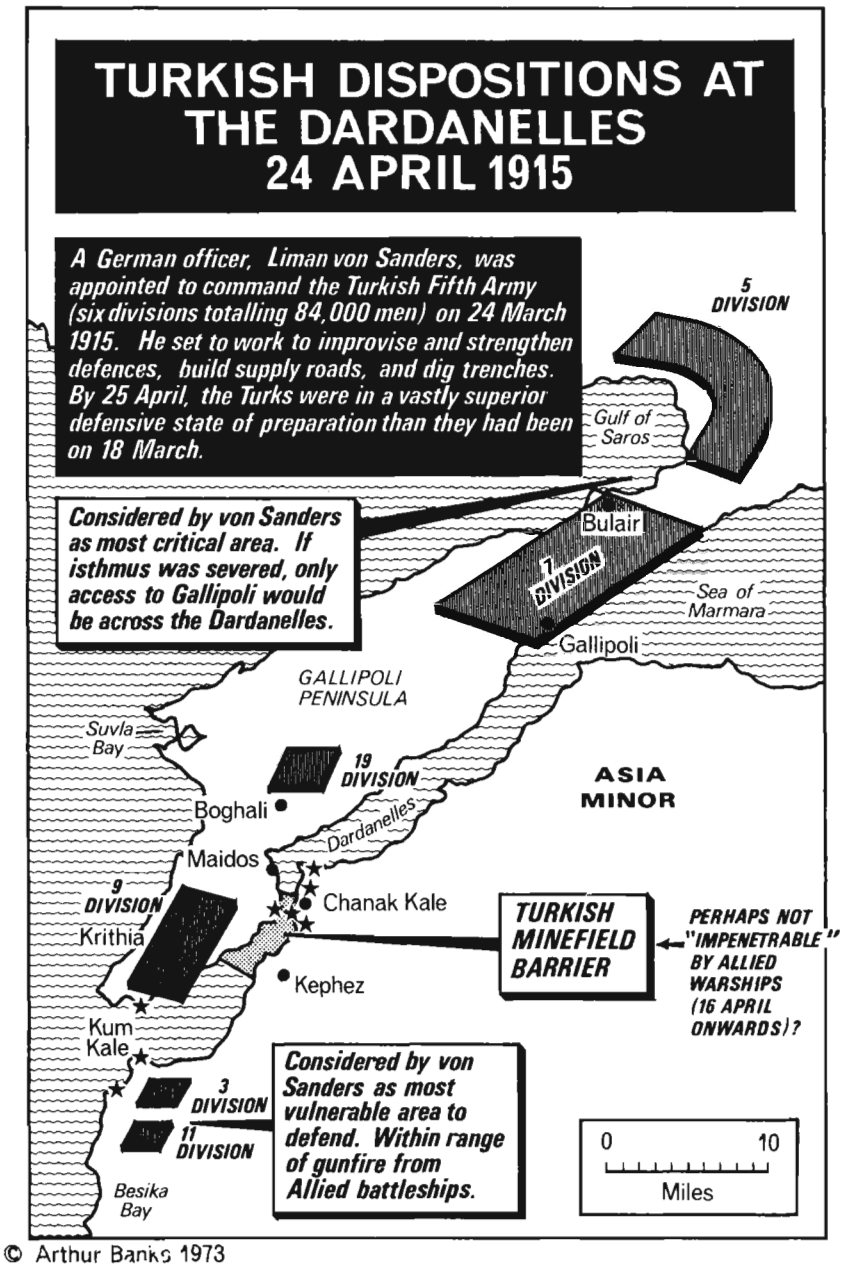
This would be utilised if it proved impossible to advance Line 'B'. It consisted of the Third Division circling Line 'A' and then attacking in a series of runs at steadily decreased ranges until the Inner Defences were sufficiently dominated to permit the resumption of the original plan.

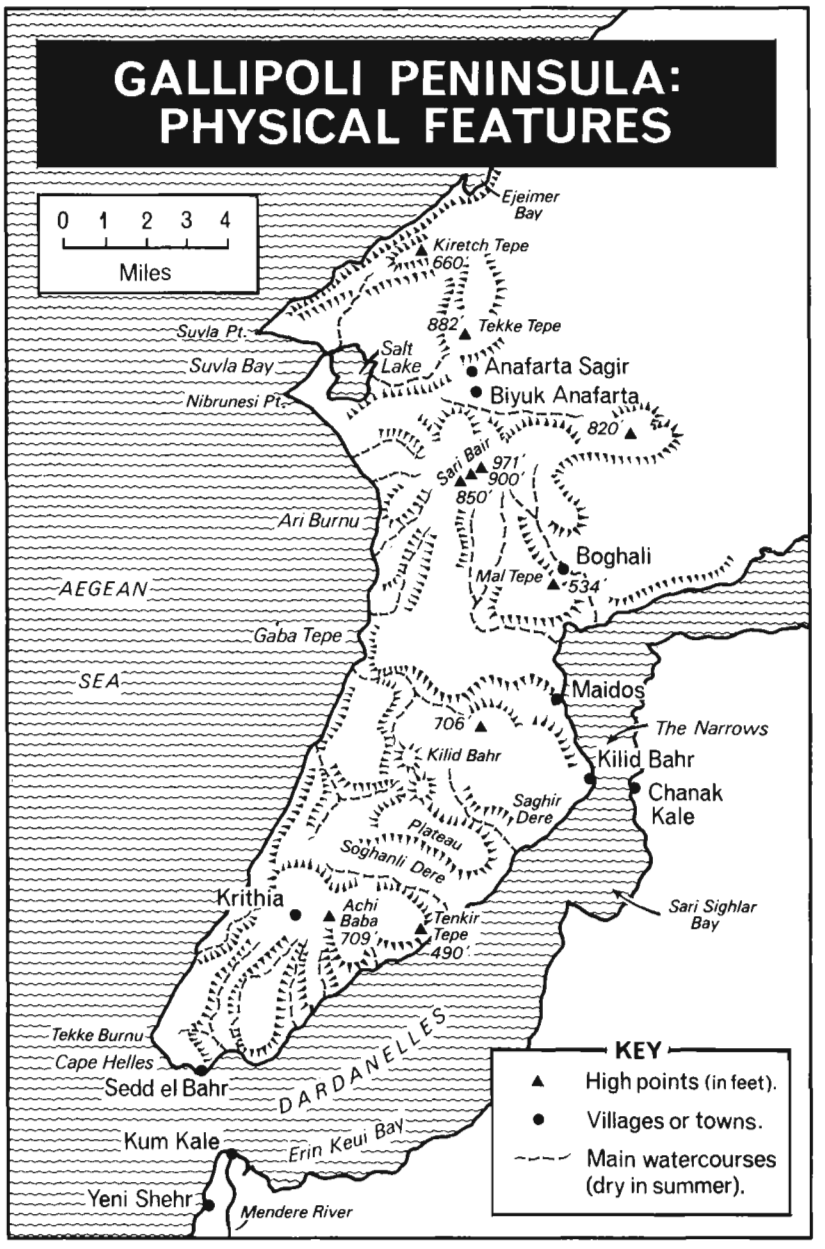
## FINAL CLOSE-RANGE BOMBARDMENT

After four hours of attack by Lines 'A' and 'B', Second Division (Third, Fourth Sub-Divisions) would complete the operations, Fifth Sub-Division being reserved for minesweeping aid.

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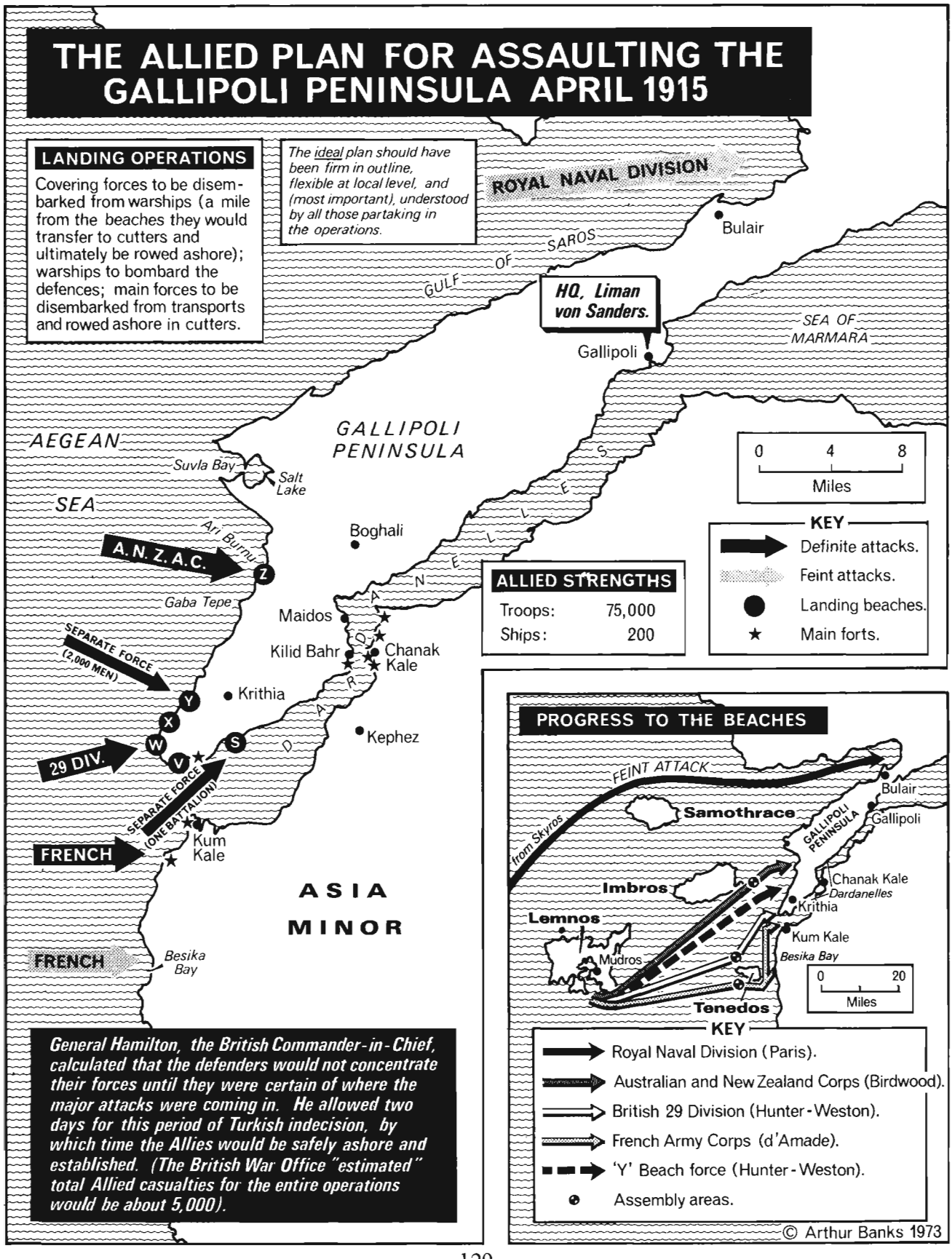

RIVAL DISPOSITIONS IN THE MIDDLE EAST
APRIL 1915
This map shows the rival dispositions in the Middle East prior to the Allied attack on Gallipoli (25 April 1915). The Turkish strengths are shown in detail to illustrate just how scattered was their total army of 400,000 men. Inadequate transport facilities and difficult terrain prevented a rapid movement of troops from one front to another.
0
200
Miles
RUMANIA
RUSSIA
SOFIA
BULGARIA
(neutral)
Four divisions.
SIX DIVISIONS ON GALLIPOLI PENINSULA AND ASIATIC SHORE OF DARDANELLES.
CONSTANTINOPLE
Black Sea
Caucasus Mountains
Caspian Sea
Batum
Trebizond
Six divisions.
Third Army remnants.
Baku
Lemnos
Dardanelles
GREECE
(neutral)
Angora
Several reserve divisions (exact number unknown)
Erzerum
OTTOMAN
ATHENS
Smyrna
BERLIN
ARMENIA
ANATOLIA
Lake Van
Lake Urmia
BAGHDAD
Alexandretta
RAILWAY
Mediterranean
Rhodes
Mosul
Aleppo
MESOPOTAMIA
Crete
Cyprus
SYRIA
EMPIRE
Tigris
PERSIA
(under Russian influence)
One division.
Sea
Damascus
Euphrates
Alexandria
Baghdad
Jerusalem
SYRIAN DESERT
Three divisions.
Basra
CAIRO
SINAI
Four divisions.
EGYPT
(British)
Nile
Persian Gulf
Red Sea
KEY
Turkish land forces.
British land and naval forces.
French land and naval forces.
Russian land and naval forces.
ALLIED
Principal railways.
© Arthur Banks 1973



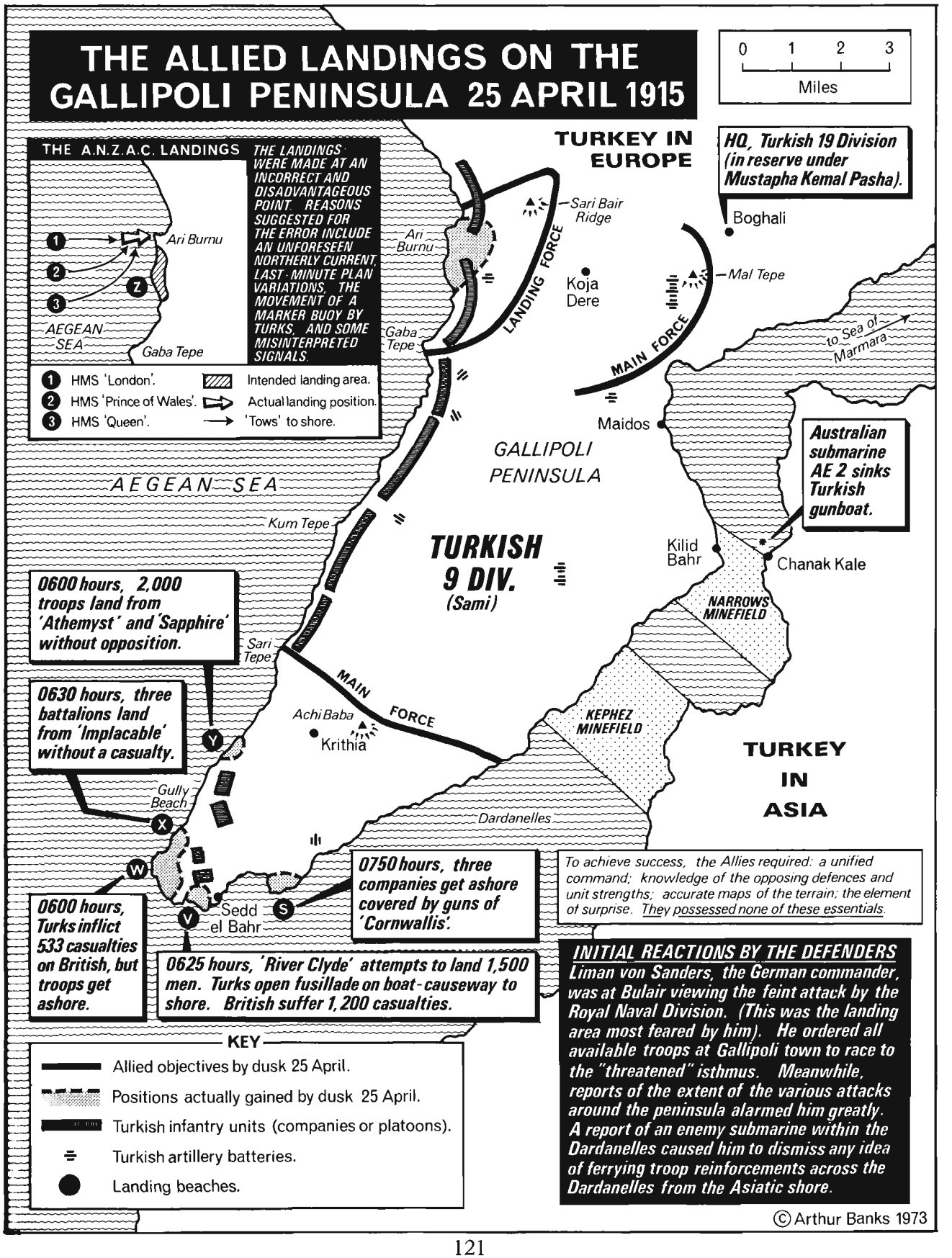



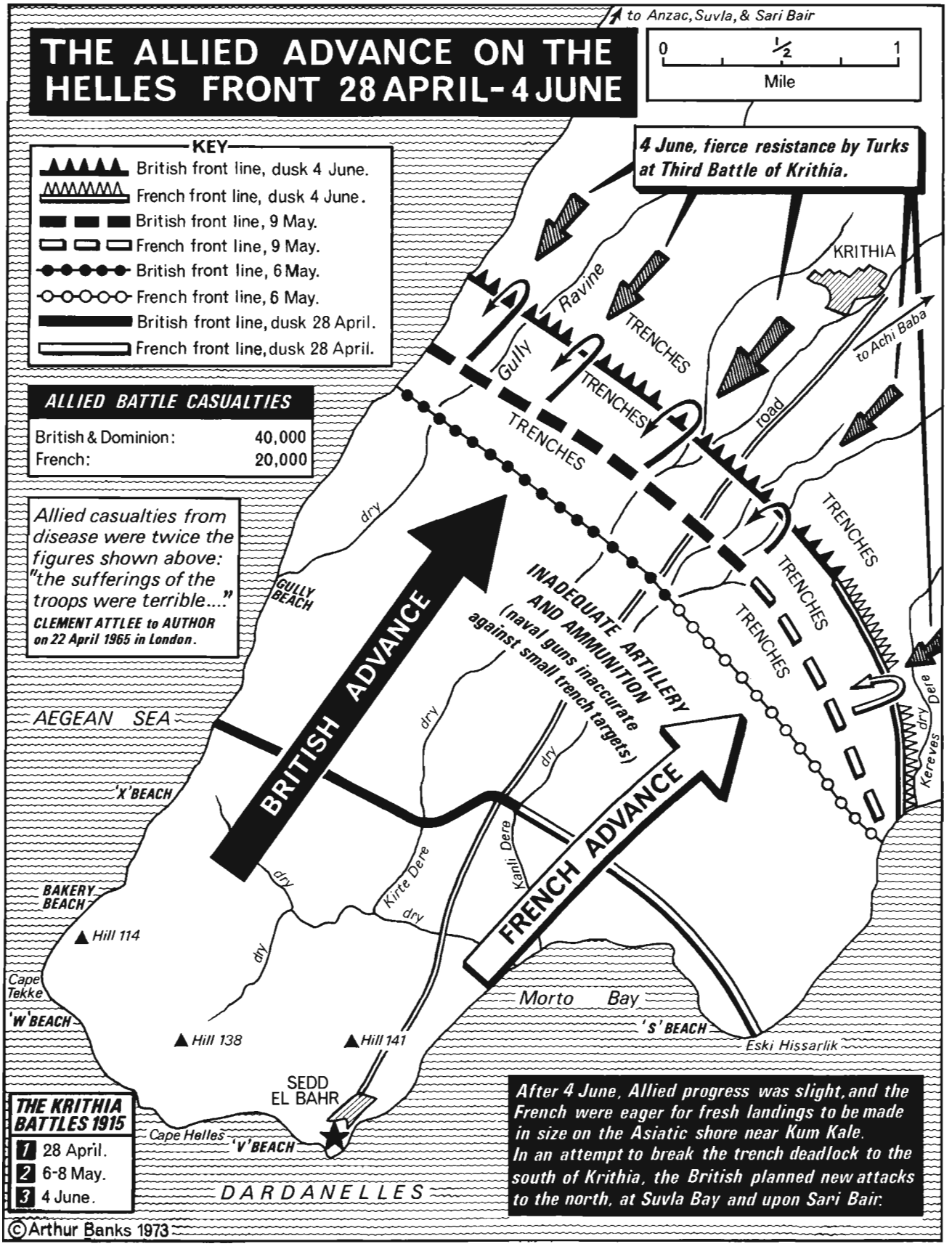

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# THE ALLIED PLAN FOR ASSAULTING THE GALLIPOLI PENINSULA APRIL 1915

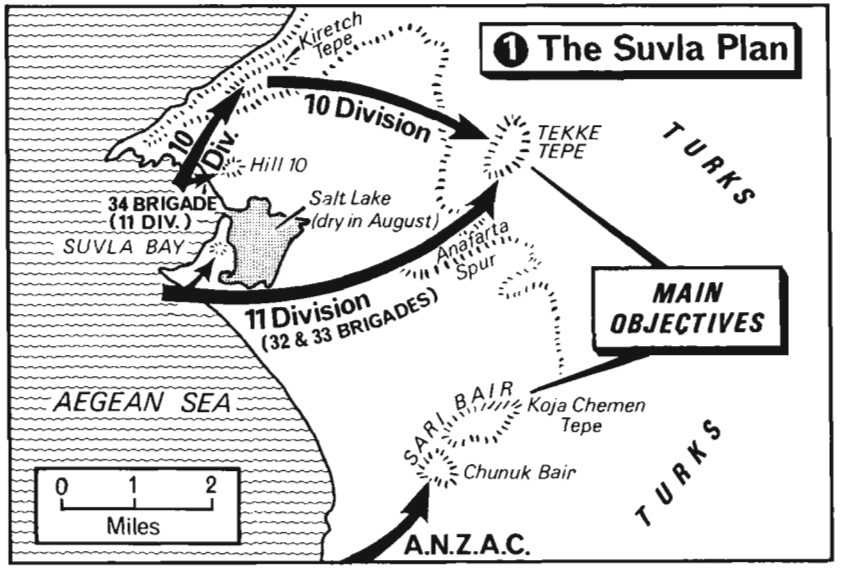


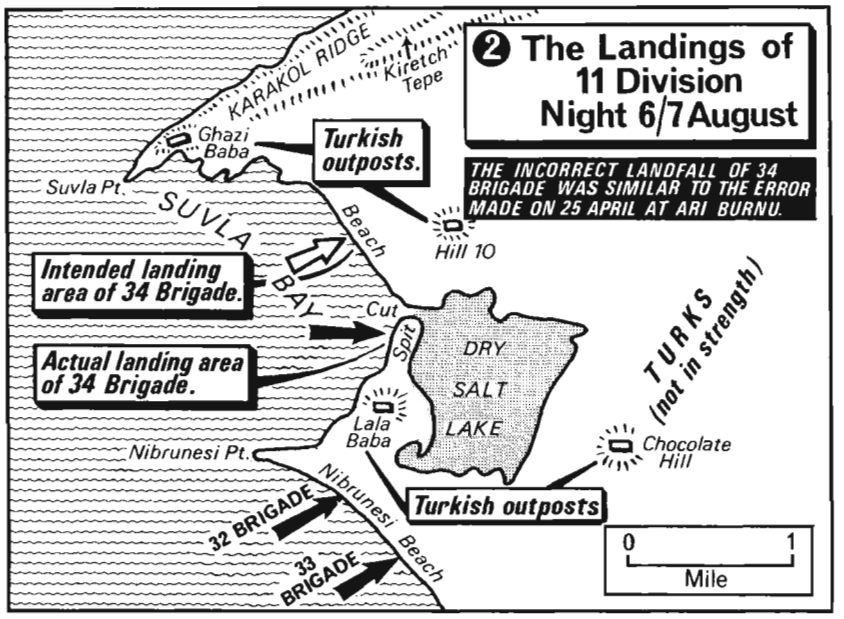

*General Hamilton, the British Commander-in-Chief, calculated that the defenders would not concentrate their forces until they were certain of where the major attacks were coming in. He allowed two days for this period of Turkish indecision, by which time the Allies would be safely ashore and established. (The British War Office "estimated" total Allied casualties for the entire operations would be about 5,000).*

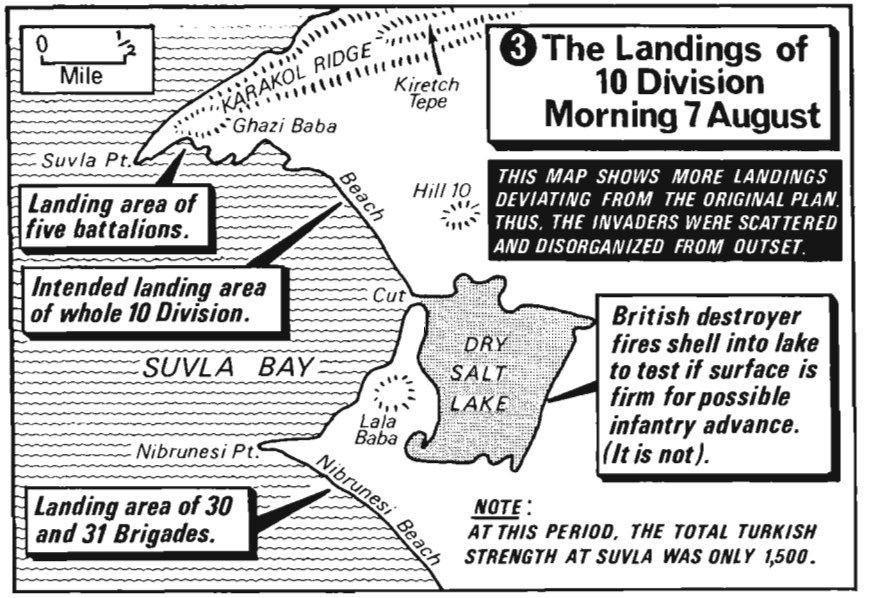

THE ALLIED LANDINGS ON THE GALLIPOLI PENINSULA 25 APRIL 1915
0 1 2 3
Miles
THE A.N.Z.A.C. LANDINGS
THE LANDINGS WERE MADE AT AN INCORRECT AND DISADVANTAGEOUS POINT. REASONS SUGGESTED FOR THE ERROR INCLUDE AN UNFORESEEN NORTHERLY CURRENT, LAST-MINUTE PLAN VARIATIONS, THE MOVEMENT OF A MARKER BUOY BY TURKS, AND SOME MISINTERPRETED SIGNALS.
Ari Burnu
AEGEAN SEA
Gaba Tepe
1 HMS 'London'.
2 HMS 'Prince of Wales'.
3 HMS 'Queen'.
Intended landing area.
Actual landing position.
'Tows' to shore.
TURKEY IN EUROPE
HQ, Turkish 19 Division (in reserve under Mustapha Kemal Pasha).
Boghali
Sari Bair Ridge
Ari Burnu
LANDING FORCE
Koja Dere
Mal Tepe
MAIN FORCE
Gaba Tepe
to Sea of Marmara
Maidos
GALLIPOLI PENINSULA
AEGEAN SEA
Australian submarine AE 2 sinks Turkish gunboat.
Kum Tepe
TURKISH 9 DIV. (Sami)
Kilid Bahr
Chanak Kale
NARROWS MINEFIELD
0600 hours, 2,000 troops land from 'Athemyst' and 'Sapphire' without opposition.
Sari Tepe
MAIN FORCE
0630 hours, three battalions land from 'Implacable' without a casualty.
Achi Baba
Krithia
KEPHEZ MINEFIELD
TURKEY IN ASIA
Y
Gully Beach
X
Dardanelles
W
0750 hours, three companies get ashore covered by guns of 'Cornwallis'.
To achieve success, the Allies required: a unified command; knowledge of the opposing defences and unit strengths; accurate maps of the terrain; the element of surprise. They possessed none of these essentials.
0600 hours, Turks inflict 533 casualties on British, but troops get ashore.
Sedd el Bahr
V
S
0625 hours, 'River Clyde' attempts to land 1,500 men. Turks open fusillade on boat-causeway to shore. British suffer 1,200 casualties.
INITIAL REACTIONS BY THE DEFENDERS
Liman von Sanders, the German commander, was at Bulair viewing the feint attack by the Royal Naval Division. (This was the landing area most feared by him). He ordered all available troops at Gallipoli town to race to the "threatened" isthmus. Meanwhile, reports of the extent of the various attacks around the peninsula alarmed him greatly. A report of an enemy submarine within the Dardanelles caused him to dismiss any idea of ferrying troop reinforcements across the Dardanelles from the Asiatic shore.
KEY
Allied objectives by dusk 25 April.
Positions actually gained by dusk 25 April.
Turkish infantry units (companies or platoons).
Turkish artillery batteries.
Landing beaches.
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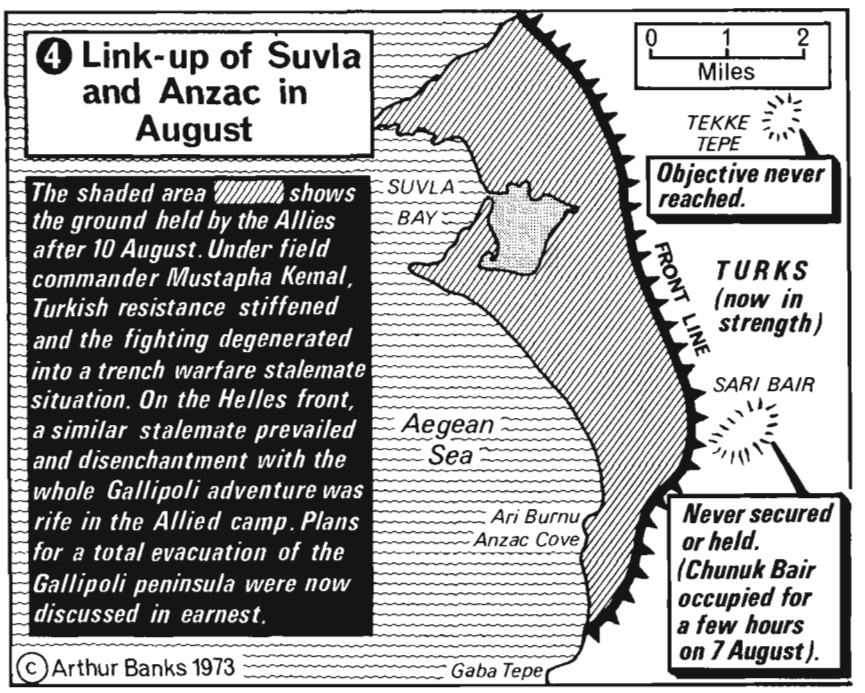

THE ALLIED ADVANCE ON THE HELLES FRONT 28 APRIL - 4 JUNE
to Anzac, Suvla, & Sari Bair
0 ½ 1
Mile
KEY
British front line, dusk 4 June.
French front line, dusk 4 June.
British front line, 9 May.
French front line, 9 May.
British front line, 6 May.
French front line, 6 May.
British front line, dusk 28 April.
French front line, dusk 28 April.
4 June, fierce resistance by Turks at Third Battle of Krithia.
KRITHIA
to Achi Baba
road
Ravine
Gully
TRENCHES
ALLIED BATTLE CASUALTIES
British & Dominion: 40,000
French: 20,000
Allied casualties from disease were twice the figures shown above: "the sufferings of the troops were terrible...."
CLEMENT ATTLEE to AUTHOR on 22 April 1965 in London.
dry
GULLY BEACH
BRITISH ADVANCE
INADEQUATE ARTILLERY AND AMMUNITION
(naval guns inaccurate against small trench targets)
FRENCH ADVANCE
AEGEAN SEA
'X' BEACH
BAKERY BEACH
Hill 114
Kirte Dere
Kanli Dere
Kereves Dere
Cape Tekke
'W' BEACH
Hill 138
Hill 141
SEDD EL BAHR
Cape Helles
'V' BEACH
Morto Bay
'S' BEACH
Eski Hissarlik
DARDANELLES
THE KRITHIA BATTLES 1915
1 28 April.
2 6-8 May.
3 4 June.
After 4 June, Allied progress was slight, and the French were eager for fresh landings to be made in size on the Asiatic shore near Kum Kale.
In an attempt to break the trench deadlock to the south of Krithia, the British planned new attacks to the north, at Suvla Bay and upon Sari Bair.
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# FRESH BRITISH LANDINGS 1915



# GALLIPOLI: OPPOSING TRENCHES ON SUVLA AND A.N.Z.A.C. FRONTS DECEMBER 1915

0 1 Mile

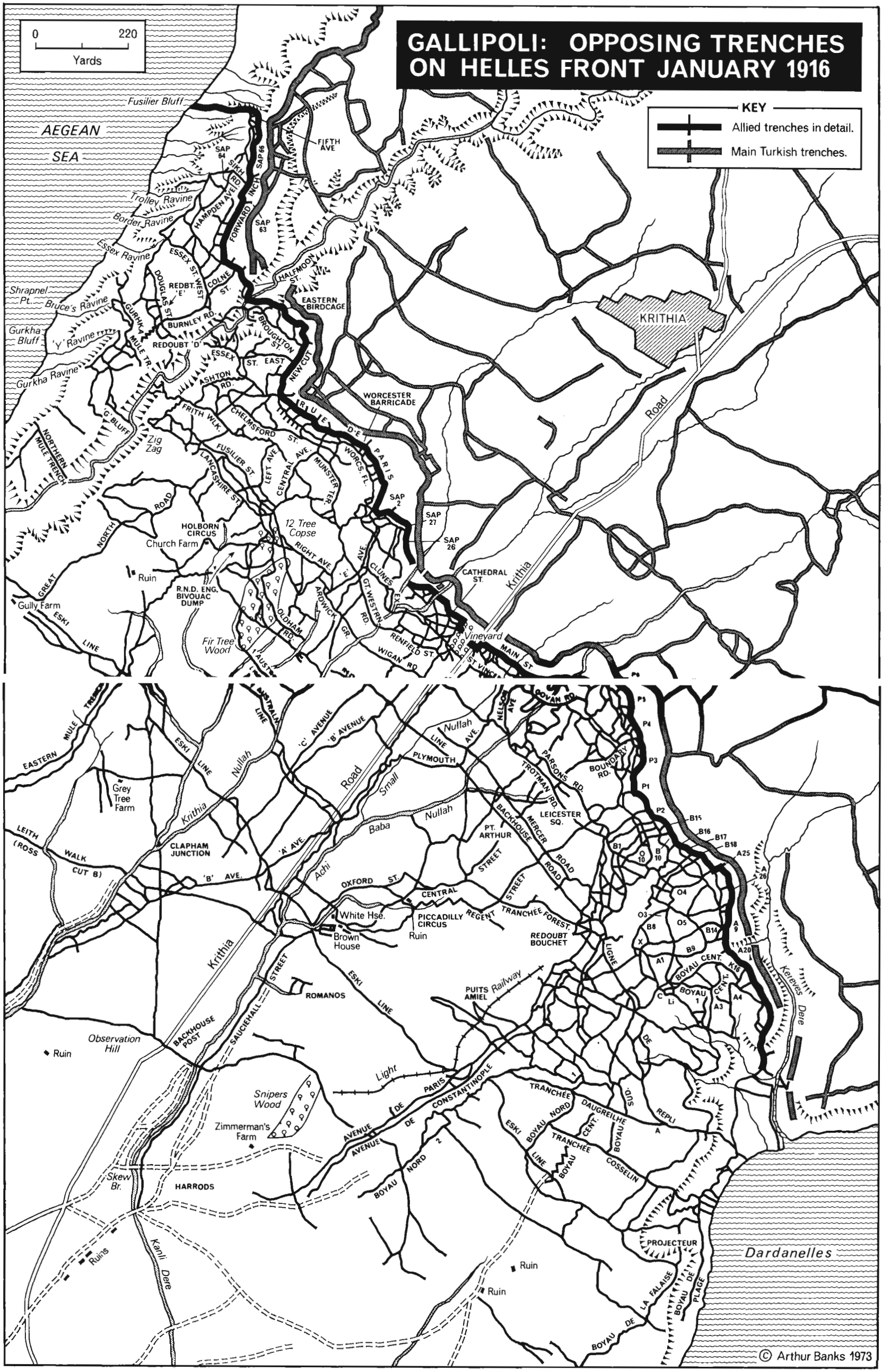
The Boot
Green Knoll
The Pimple
Northern Redoubt
Kidney Hill
Jephson's Post
Kiretch Tepe Sirt
SECTION D
Karakol Dagh
Azmak Dere
Dublin Castle
SECTION C
Kuchuk Anafarta Ova
Ghazi Baba
Suvla Pt.
Hill 10
IX CORPS
Suvla
Gloster Post
Baka Baba
ANAFARTA SAGIR
A Beach
SUVLA BAY
Salt Lake (Dry in Summer)
Sulajik
SECTION B
Lala Baba
South Pier
Nibrunesi Pt
Chocolate Hill
Scimitar Hill
Green Hill
W Hills
Hetman Chair
Plain

SECTION A
SALT LAKE
A & B Beach
Kazlar Chair
Azmak Dere
Damakjelik Bair
Aghyl Dere
Hill 60
Azma
AEGEAN SEA
Bauchop's Hill
Chailak Dere
The Farm 575
971
KOJA CHEMEN TEPE
HILL Q
850
CHUNUK BAIR
Table Top
Apex
Rhododendron Spur
Battleship Hill
Fisherman's Hut
North Beach
Piers
NEK
Baby 700
Sphinx
QUINN'S COURTNEYS
Ari Burnu
Russell's Top
ANZAC COVE
Shrapnel Gully
Scrubby Knoll
400 Plateau
Hell Spit
Lone Pine
Bolton's Ridge
Pine Ridge
Legge Valley
Gun Ridge
The Cornfield
Tasmanian Post
Ryrie's Post
Chatham's Post
Brighton Beach

KEY
Allied trenches.
Turkish trenches.
Corps boundary.

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# GALLIPOLI: OPPOSING TRENCHES ON HELLES FRONT JANUARY 1916

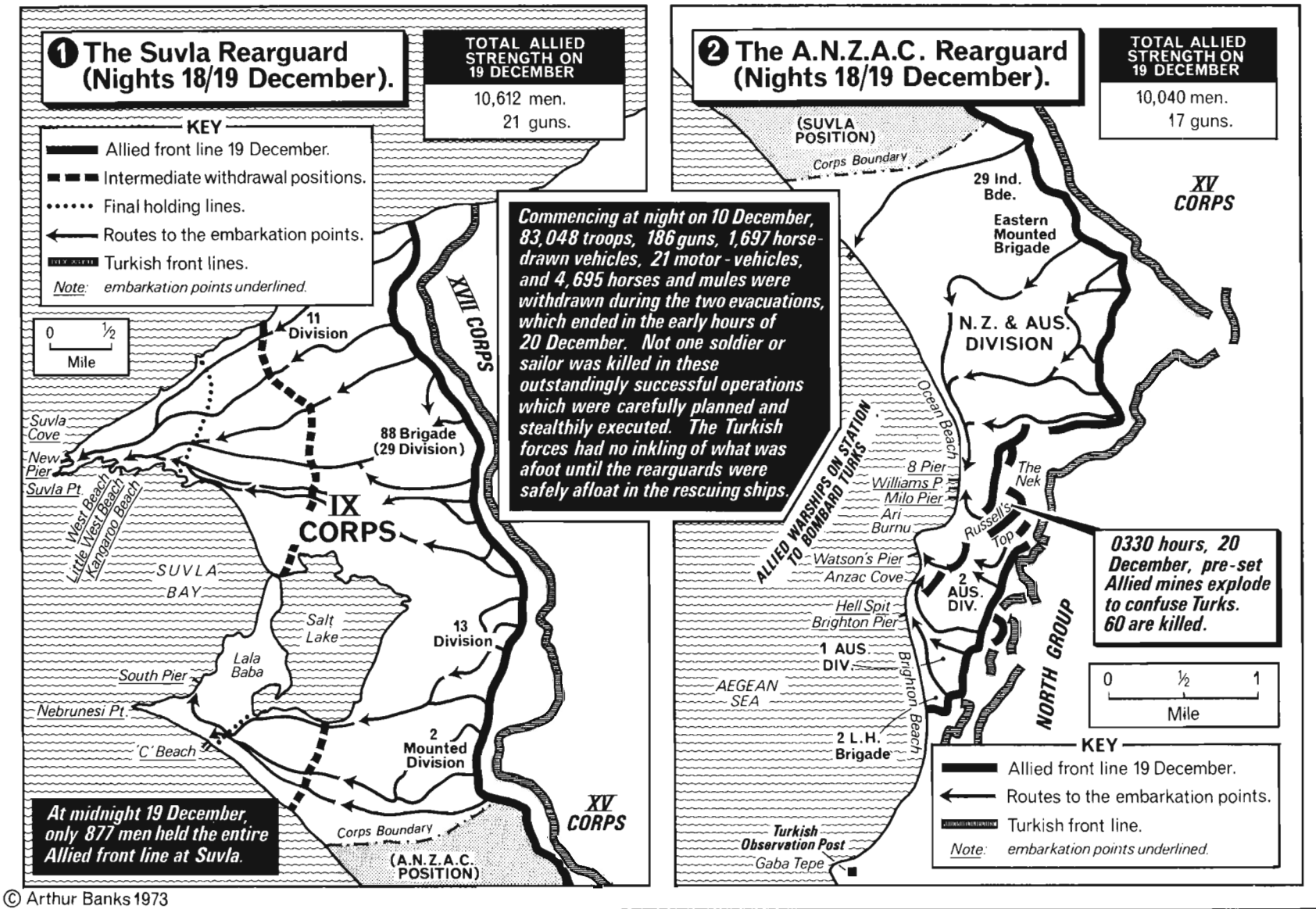




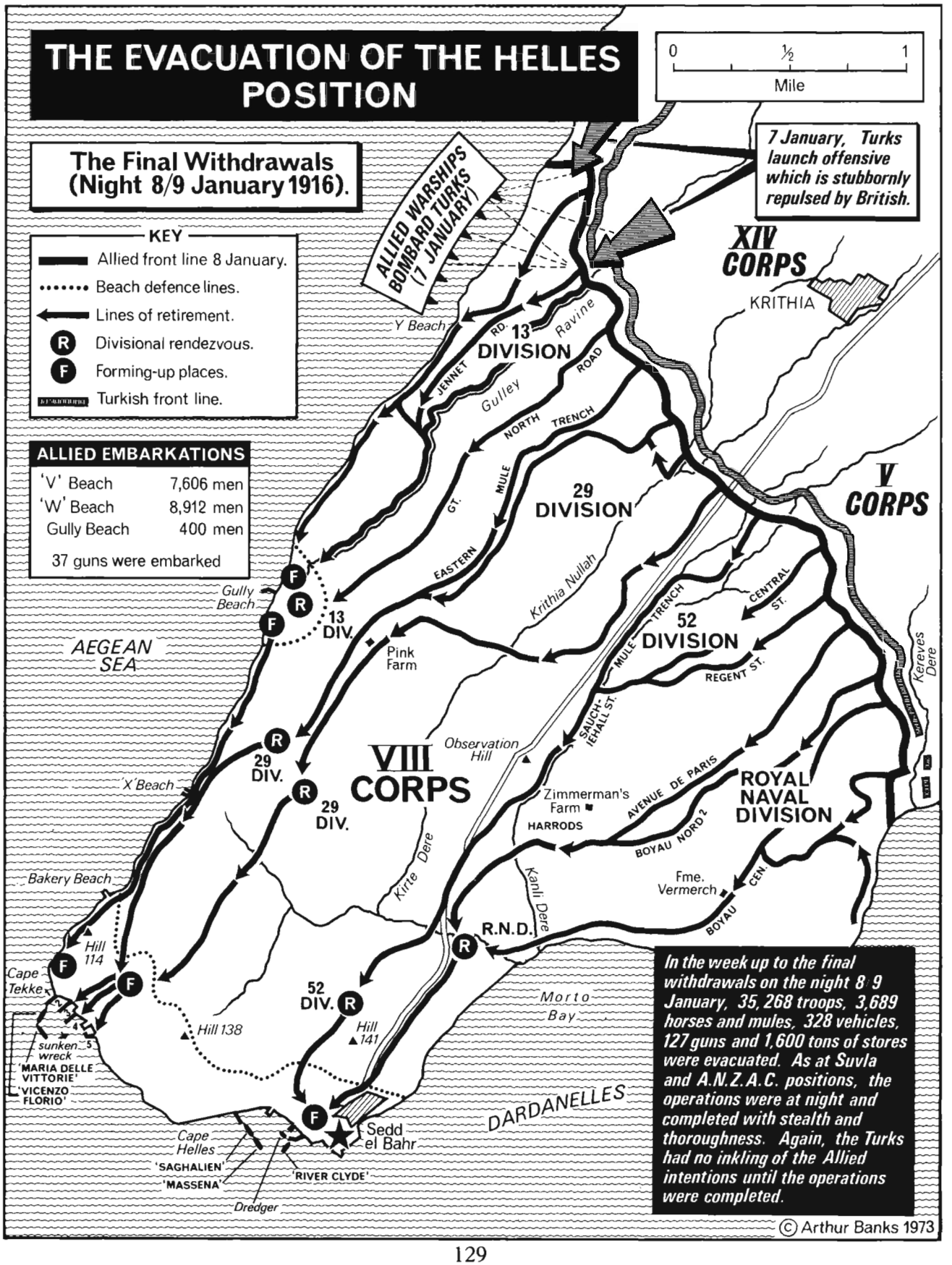



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# THE EVACUATIONS OF THE SUVLA AND A.N.Z.A.C. POSITIONS




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THE EVACUATION OF THE HELLES POSITION
The Final Withdrawals (Night 8/9 January 1916).
KEY
Allied front line 8 January.
Beach defence lines.
Lines of retirement.
Divisional rendezvous.
Forming-up places.
Turkish front line.
ALLIED EMBARKATIONS
'V' Beach 7,606 men
'W' Beach 8,912 men
Gully Beach 400 men
37 guns were embarked
0 ½ 1
Mile
7 January, Turks launch offensive which is stubbornly repulsed by British.
ALLIED WARSHIPS BOMBARD TURKS (7 JANUARY)
XIV CORPS
KRITHIA
V CORPS
13 DIVISION
29 DIVISION
52 DIVISION
ROYAL NAVAL DIVISION
VIII CORPS
13 DIV.
29 DIV.
29 DIV.
52 DIV.
R.N.D.
Y Beach
Gully Beach
'X' Beach
Bakery Beach
AEGEAN SEA
DARDANELLES
Morto Bay
Sedd el Bahr
Cape Helles
Cape Tekke
Hill 114
Hill 138
Hill 141
Pink Farm
Observation Hill
Zimmerman's Farm
HARRODS
Fme. Vermerch
Krithia Nullah
Kirte Dere
Kanli Dere
Kereves Dere
Gully Ravine
JENNET RD.
GULLEY ROAD
NORTH TRENCH
GT. MULE
EASTERN
MULE TRENCH
CENTRAL ST.
REGENT ST.
SAUCHIEHALL ST.
AVENUE DE PARIS
BOYAU NORD 2
BOYAU CEN.
sunken wreck
'MARIA DELLE VITTORIE'
'VICENZO FLORIO'
'SAGHALIEN'
'MASSENA'
'RIVER CLYDE'
Dredger
In the week up to the final withdrawals on the night 8/9 January, 35,268 troops, 3,689 horses and mules, 328 vehicles, 127 guns and 1,600 tons of stores were evacuated. As at Suvla and A.N.Z.A.C. positions, the operations were at night and completed with stealth and thoroughness. Again, the Turks had no inkling of the Allied intentions until the operations were completed.
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# THE WAR IN 1915

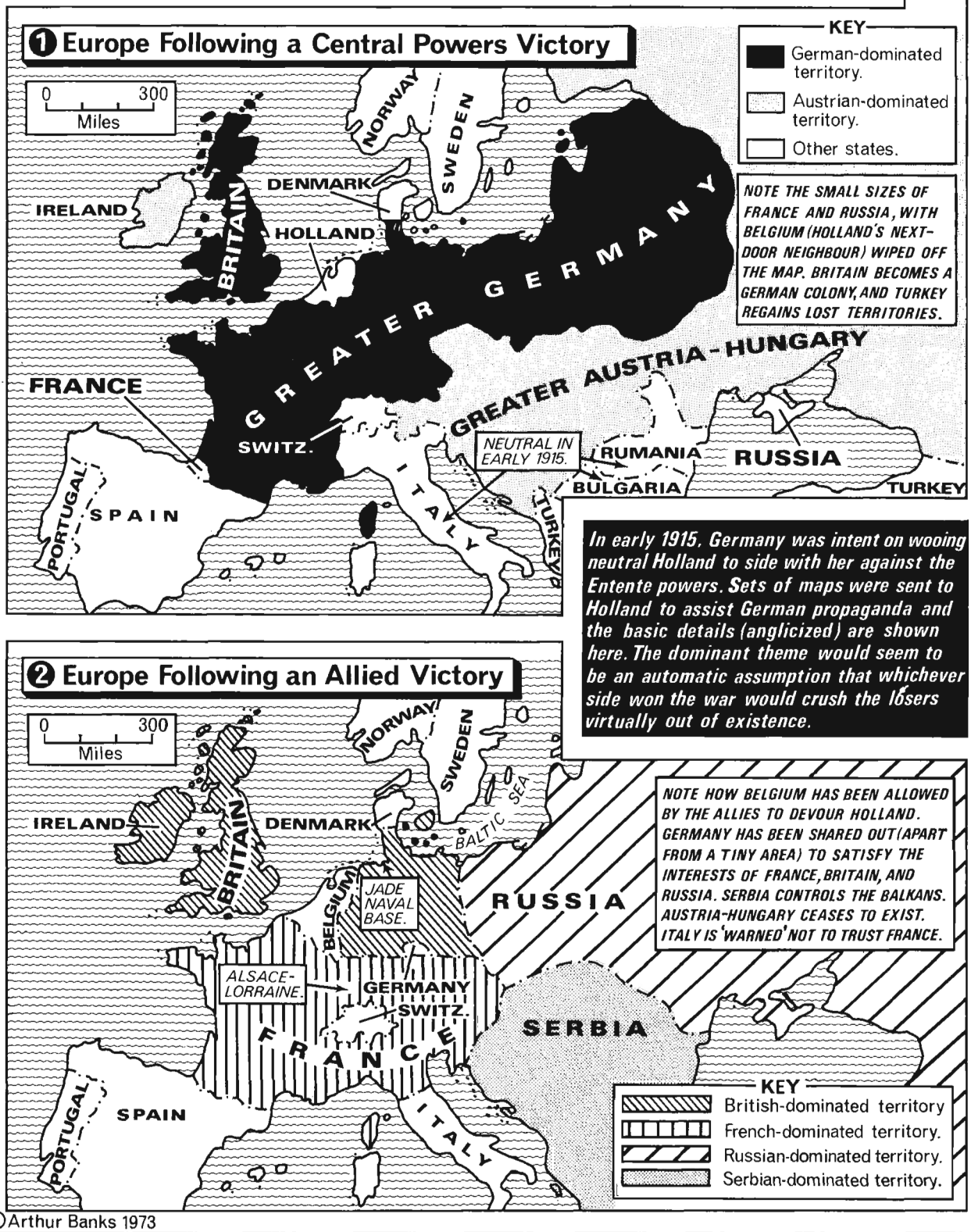
The Dardanelles and Gallipoli dominated the minds of the political leaders in Whitehall during the opening months of 1915. But Sir John French and his generals across the Channel bitterly opposed any plans which might divert troops from the Western Front, and Joffre agreed with them. French and his principal subordinate, Haig, wished to attack the Germans in Belgium as soon as the weather was favourable. Joffre had hopes of a two-pronged thrust later in the spring in Artois and Champagne, intended to break through the German lines and sweep across Belgium west of the Ardennes. Reality fell short of expectation that year on every sector of the Western Front: the British gained the town of Neuve Chapelle at the cost of heavy casualties in March (pages 136–137); the German offensive in the West during April sought to eliminate the Ypres Salient, but, despite the use of poison gas, their success was limited to a few villages; and later frontal assaults by the British and the French in Artois, at Loos, and in Champagne, though shaking the vertebrae of the German defensive system, failed to crack the spinal cord. The newspapers continued to carry long casualty lists which, together with the frustrations of Gallipoli, emphasised the terrible burden of the War on families far from the battlefronts. The first Zeppelin raids (pages 286–290) brought a new terror to English homes.

The news from other fronts was no more encouraging. At first it seemed that the Russians would make some progress on the southern sector of the Eastern Front, for they at last captured the fortress of Przemysl on 22 March. But Falkenhayn, unlike Moltke in the previous year, was prepared to co-ordinate strategy with Conrad. In May a massive Austro-German offensive began in Galicia, breaking through four lines of Russian defences at Gorlice and forcing a general withdrawal from the Carpathians. The Russians were driven out of Przemysl, out of Galicia, and out of Poland as well. When the campaign ended, half a million Russians were in prisoner-of-war cages. Nor was this the limit of Falkenhayn's success. In October Mackensen, the victor of Gorlice, set up his headquarters in southern Hungary and took command of a joint Austro–Germano–Bulgarian army which overran Serbia (page 160) and gave Germany control of a continuous railway route from Berlin to Constantinople and the Middle East. The Allied response to Bulgaria's alliance with Germany was, at last, to establish a base at Salonika, but no effective aid could be given to Serbia.

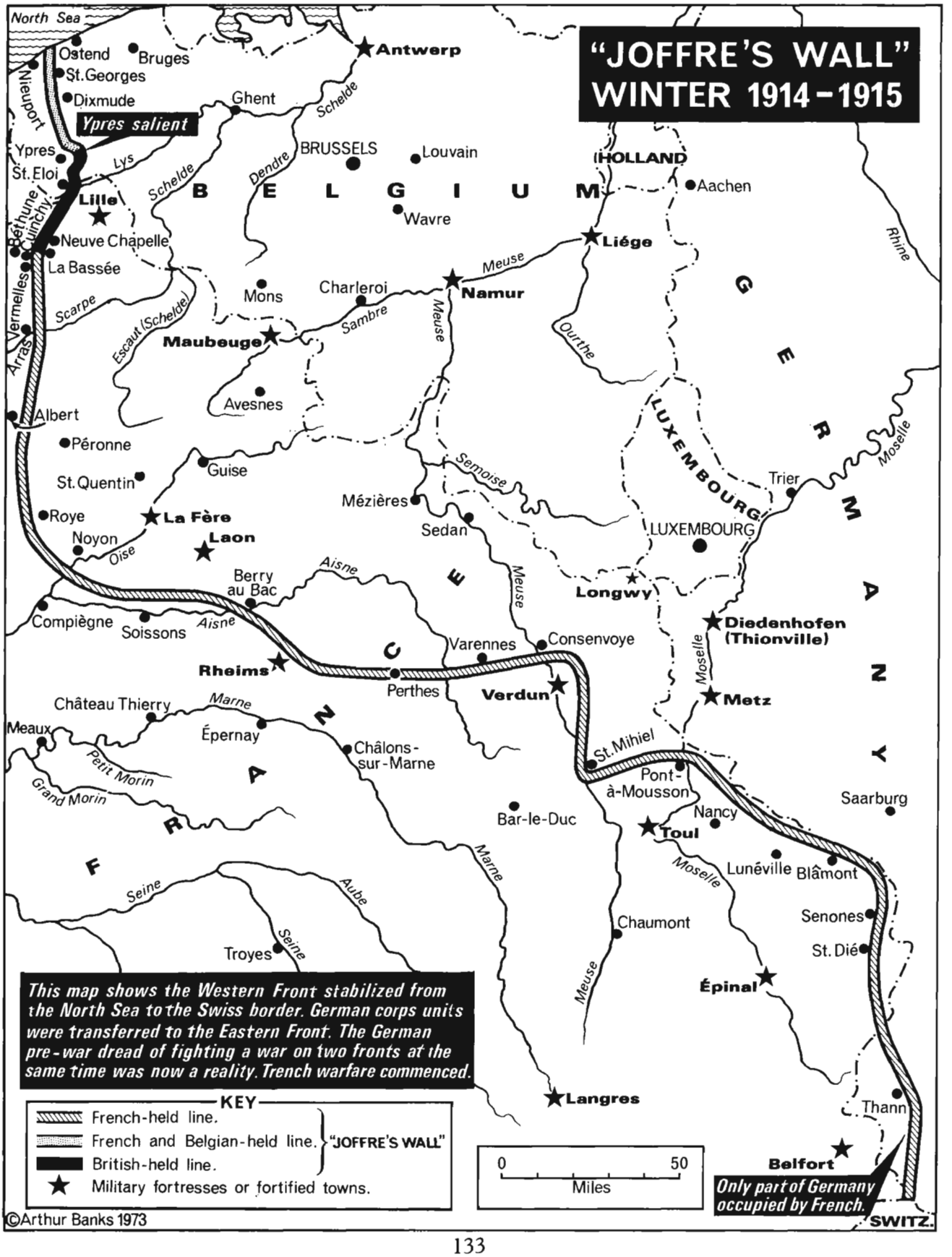
Bulgaria's entry into the German camp was preceded by Italy's adhesion to the Allied cause in May 1915. But, though it was hoped in London and Paris that Italy would pose a new threat to Austria-Hungary, this Front, too, was soon paralysed by defensive trench warfare (page 200–201). Briefly it seemed possible that the German U-Boat campaign, and especially the sinking of the Cunard liner *Lusitania* with the loss of 128 American lives on 6 May, would bring the United States into the War, but the Germans gave informal assurances that passenger ships would not be sunk without warning, and America maintained her neutrality.

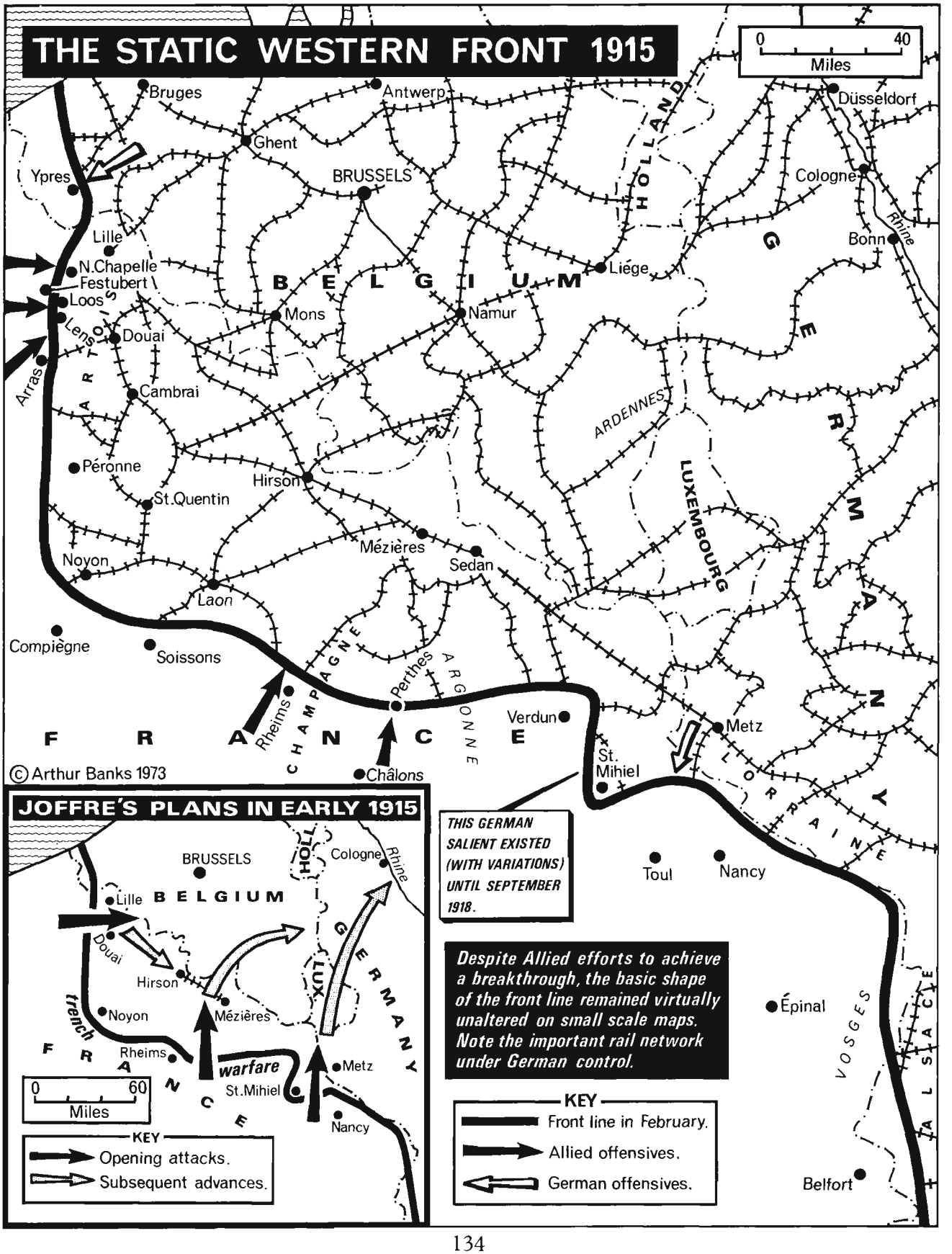
By the end of the year the war seemed as rapacious of lives and material as ever, and there was no prospect of peace. Among the Allies, and especially in Britain, indignation mounted at the lack of munitions. On both sides governments began to take unprecedented measures to organise their economy for a long war. The task was to prove too great for Tsarist Russia.

# GERMAN CARTOGRAPHIC PROPAGANDA 1915



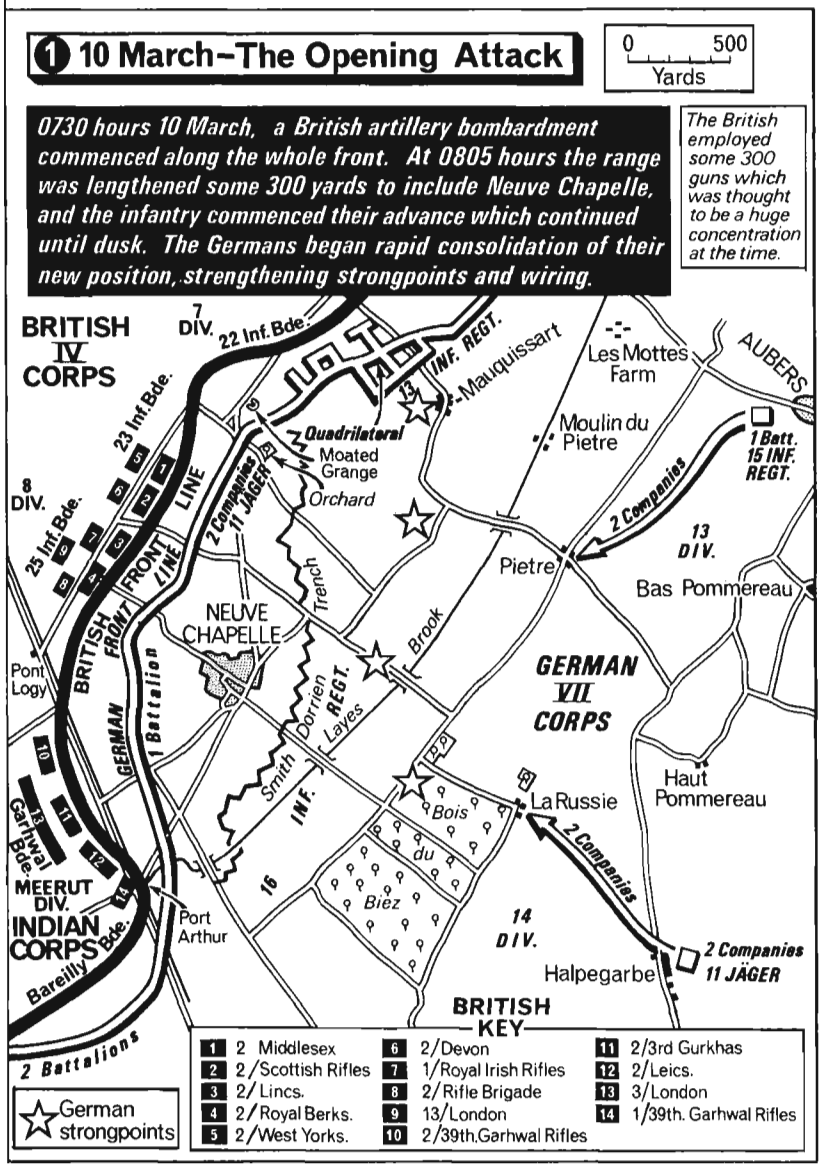

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"JOFFRE'S WALL"
WINTER 1914-1915
North Sea
Ostend
Bruges
St.Georges
Dixmude
Nieuport
Ypres salient
Ypres
St.Eloi
Lys
Schelde
Dendre
Ghent
Antwerp
BRUSSELS
Louvain
HOLLAND
Aachen
B E L G I U M
Wavre
Lille
Bethune
Quinchy
Neuve Chapelle
La Bassée
Vermelles
Arras
Scarpe
Escaut (Schelde)
Mons
Charleroi
Sambre
Meuse
Namur
Liége
Rhine
Maubeuge
Ourthe
G E R M A N Y
Avesnes
Albert
Péronne
Guise
St.Quentin
Roye
La Fère
Noyon
Laon
Oise
Aisne
Berry au Bac
Semoise
Mézières
Sedan
LUXEMBOURG
Trier
Moselle
Longwy
Diedenhofen (Thionville)
Compiègne
Soissons
Varennes
Consenvoye
Rheims
Perthes
Verdun
Metz
Château Thierry
Marne
Meaux
Épernay
Châlons-sur-Marne
St.Mihiel
Pont-à-Mousson
Nancy
Saarburg
Petit Morin
Grand Morin
Bar-le-Duc
Toul
Lunéville
Blâmont
Seine
Aube
Chaumont
Senones
Troyes
St.Dié
Épinal
Langres
Thann
Belfort
Only part of Germany occupied by French.
SWITZ.
This map shows the Western Front stabilized from the North Sea to the Swiss border. German corps units were transferred to the Eastern Front. The German pre-war dread of fighting a war on two fronts at the same time was now a reality. Trench warfare commenced.
KEY
French-held line.
French and Belgian-held line.
British-held line.
"JOFFRE'S WALL"
Military fortresses or fortified towns.
0
50
Miles
©Arthur Banks 1973


THE STATIC WESTERN FRONT 1915
0
40
Miles
Bruges
Antwerp
Ghent
Ypres
BRUSSELS
Lille
N.Chapelle
Festubert
Loos
Lens
Douai
Arras
Cambrai
Mons
Namur
Liége
HOLLAND
Düsseldorf
Cologne
Rhine
Bonn
GERMANY
B E L G I U M
ARDENNES
LUXEMBOURG
Péronne
Hirson
St.Quentin
Mézières
Sedan
Noyon
Laon
Compiègne
Soissons
Rheims
CHAMPAGNE
Perthes
ARGONNE
Verdun
Metz
St. Mihiel
LORRAINE
F R A N C E
© Arthur Banks 1973
Châlons
Toul
Nancy
Épinal
VOSGES
ALSACE
Belfort
THIS GERMAN SALIENT EXISTED (WITH VARIATIONS) UNTIL SEPTEMBER 1918.
Despite Allied efforts to achieve a breakthrough, the basic shape of the front line remained virtually unaltered on small scale maps. Note the important rail network under German control.
KEY
Front line in February.
Allied offensives.
German offensives.
JOFFRE'S PLANS IN EARLY 1915
BRUSSELS
Cologne
Rhine
Lille
B E L G I U M
Douai
Hirson
Noyon
Mézières
trench warfare
Rheims
St.Mihiel
Metz
Nancy
LUX
GERMANY
F R A N C E
0
60
Miles
KEY
Opening attacks.
Subsequent advances.

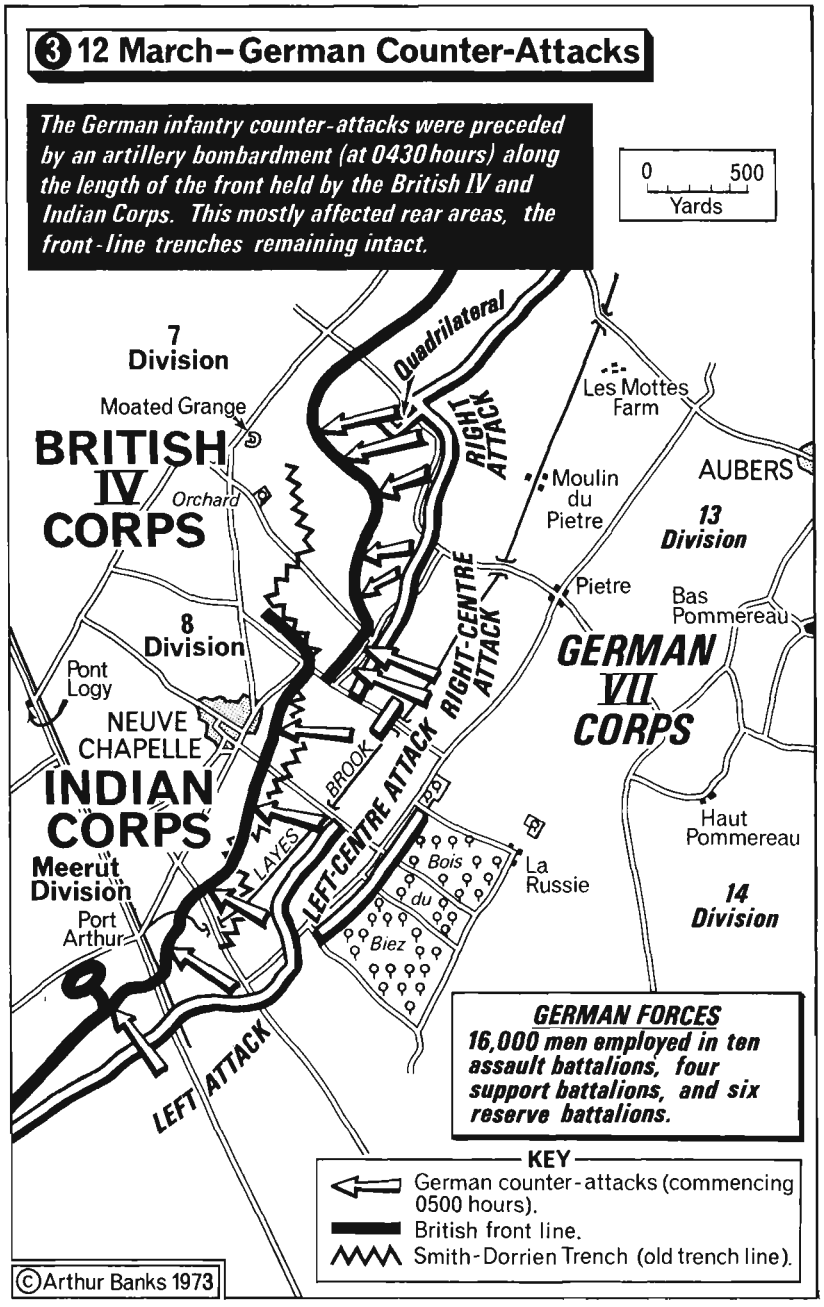

THE MOBILE EASTERN FRONT 1915
0 50 100
Miles
Riga
Libau
Fell on 8 May.
Not captured by Germans.
Dvinsk
Dvina
Memel
BALTIC SEA
Stormed by Germans 17-18 August.
Germany's aim was to make the Eastern Front safe and passive so that she could switch her main assault to the Western Front (she did not hope to completely defeat Russia). Rather than instituting an "enveloping" operation, she decided to attempt a "breakthrough" attack between Gorlice and Tarnow. This commenced on 2 May 1915, in concert with the Austrians. This front contrasts sharply with the Western Front during 1915.
Kovno
Königsberg
Danzig
EAST PRUSSIA
MASURIAN LAKES
Niemen
Vistula
Graudenz
Grodno
Fell on 2 September.
RUSSIA
Narew
Thorn
Capitulated on 20 August.
Vistula
Entered by Germans on 5 August.
Novo-Georgievsk
Warsaw
Bug
Brest-Litovsk
North of this position, the front line remained as shown (with minor variations) until the end of 1917.
POLAND
Pripet
Surrendered on 26 August.
Vistula
Ivangorod
South of this position, the front line remained as shown (with minor variations) until June 1916.
Fell on 5 August.
San
Vistula
Evacuated by Russians on 22 June.
Tarnow
Cracow
Lemberg
GALICIA
2 MAY 1915
Przemysl
GERMAN ELEVENTH ARMY
Gorlice
Fell on 3 June.
CARPATHIAN MOUNTAINS
Dniester
Pruth
Tisza
KEY
Opening assault by German and Austrian armies.
Advances by German and Austrian armies.
Front line, 2 May.
Front line, 1 June.
Front line, 16 July.
Front line, 15 August.
Front line, 1 September.
Front line, winter 1915.
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# THE BATTLE OF NEUVE CHAPELLE 10-12 MARCH 1915



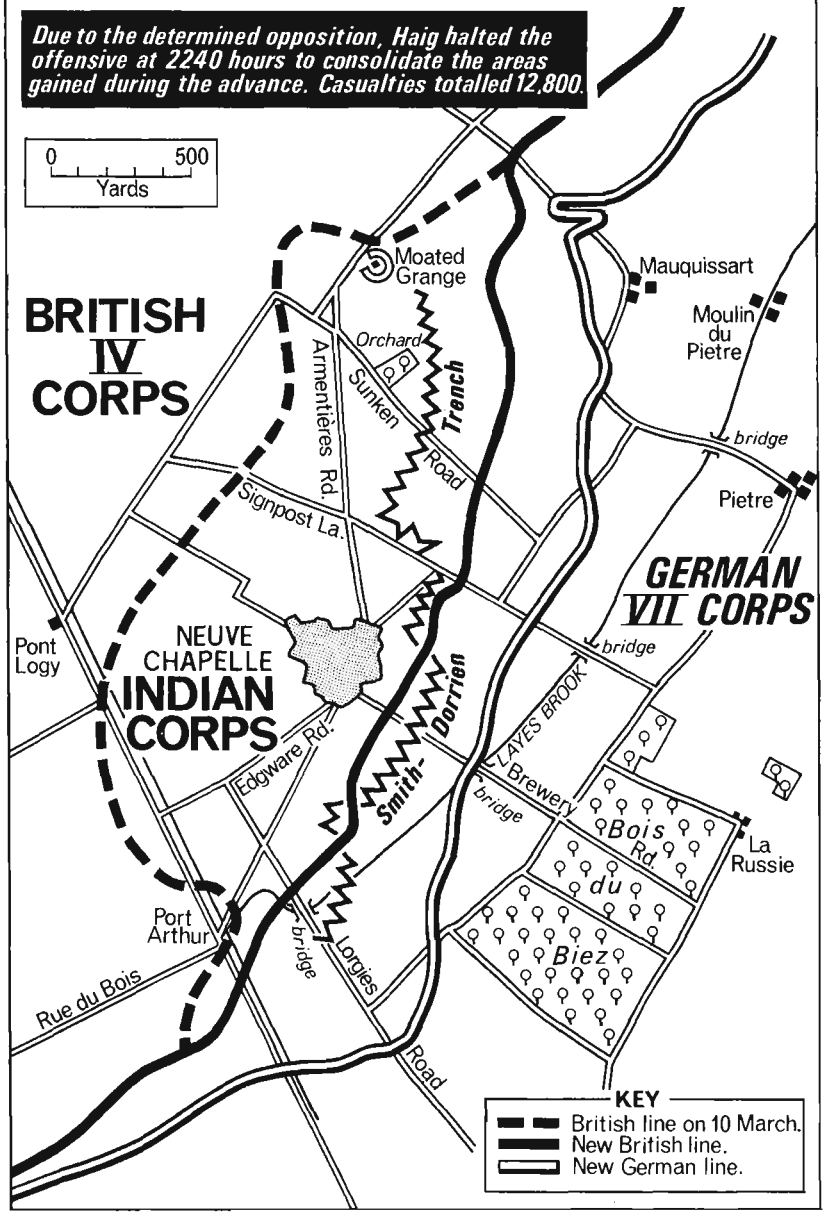
## 3 12 March–German Counter-Attacks

*The German infantry counter-attacks were preceded by an artillery bombardment (at 0430 hours) along the length of the front held by the British IV and Indian Corps. This mostly affected rear areas, the front-line trenches remaining intact.*

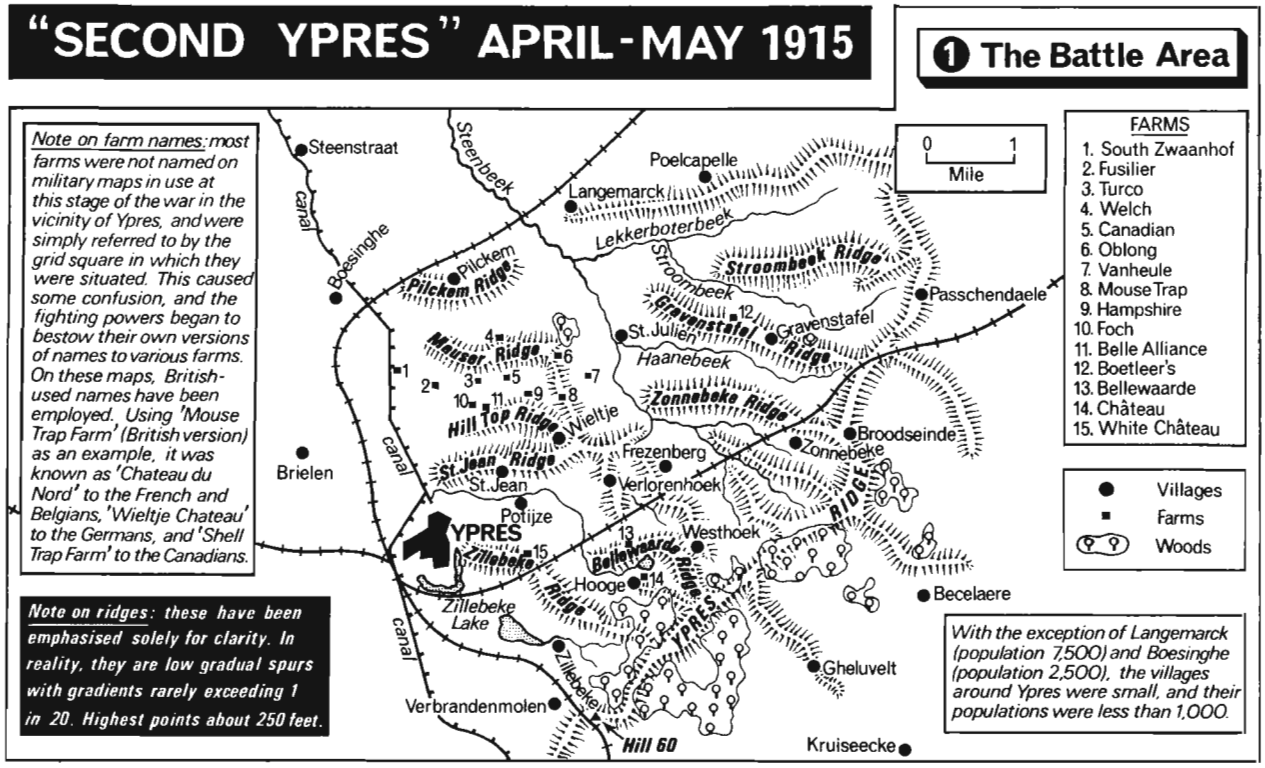


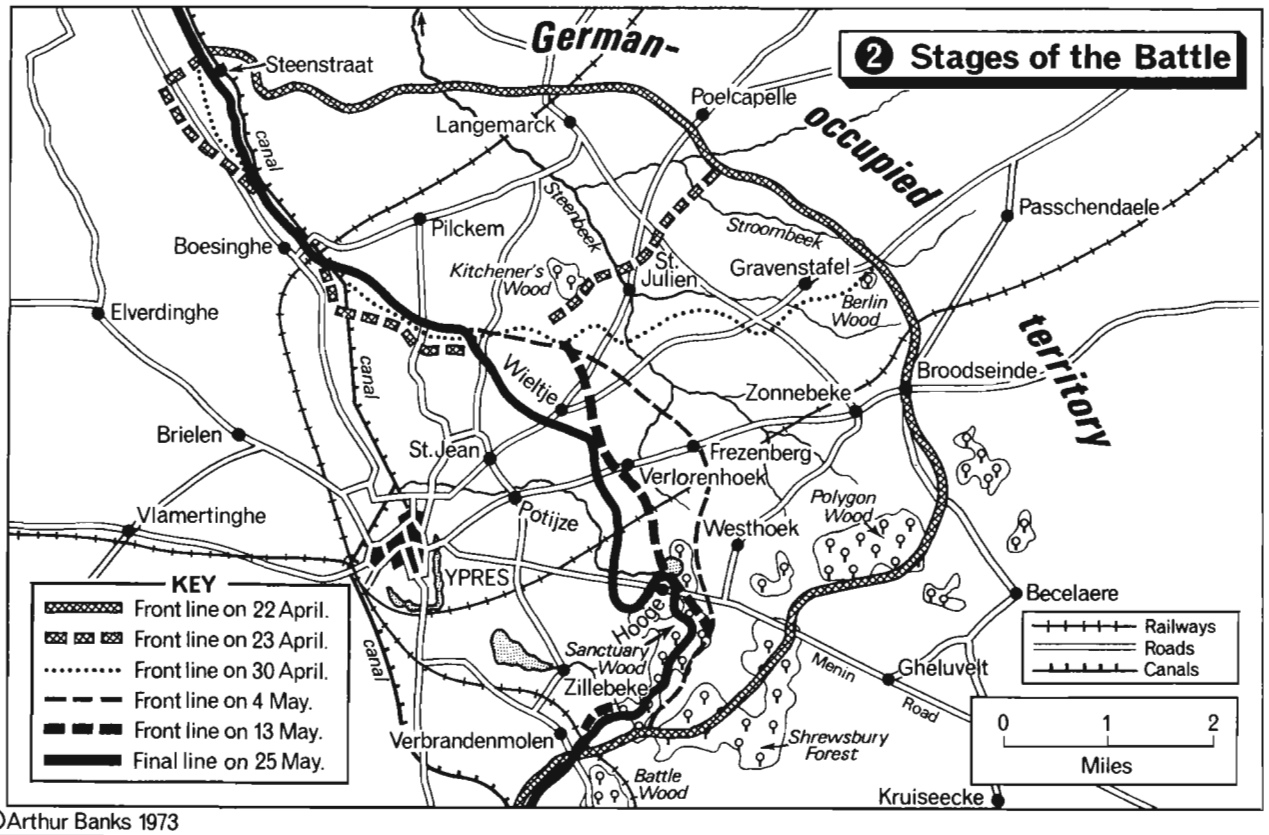

## 4 12 March – Close of Battle; Situation at 2400

*Due to the determined opposition, Haig halted the offensive at 2240 hours to consolidate the areas gained during the advance. Casualties totalled 12,800.*

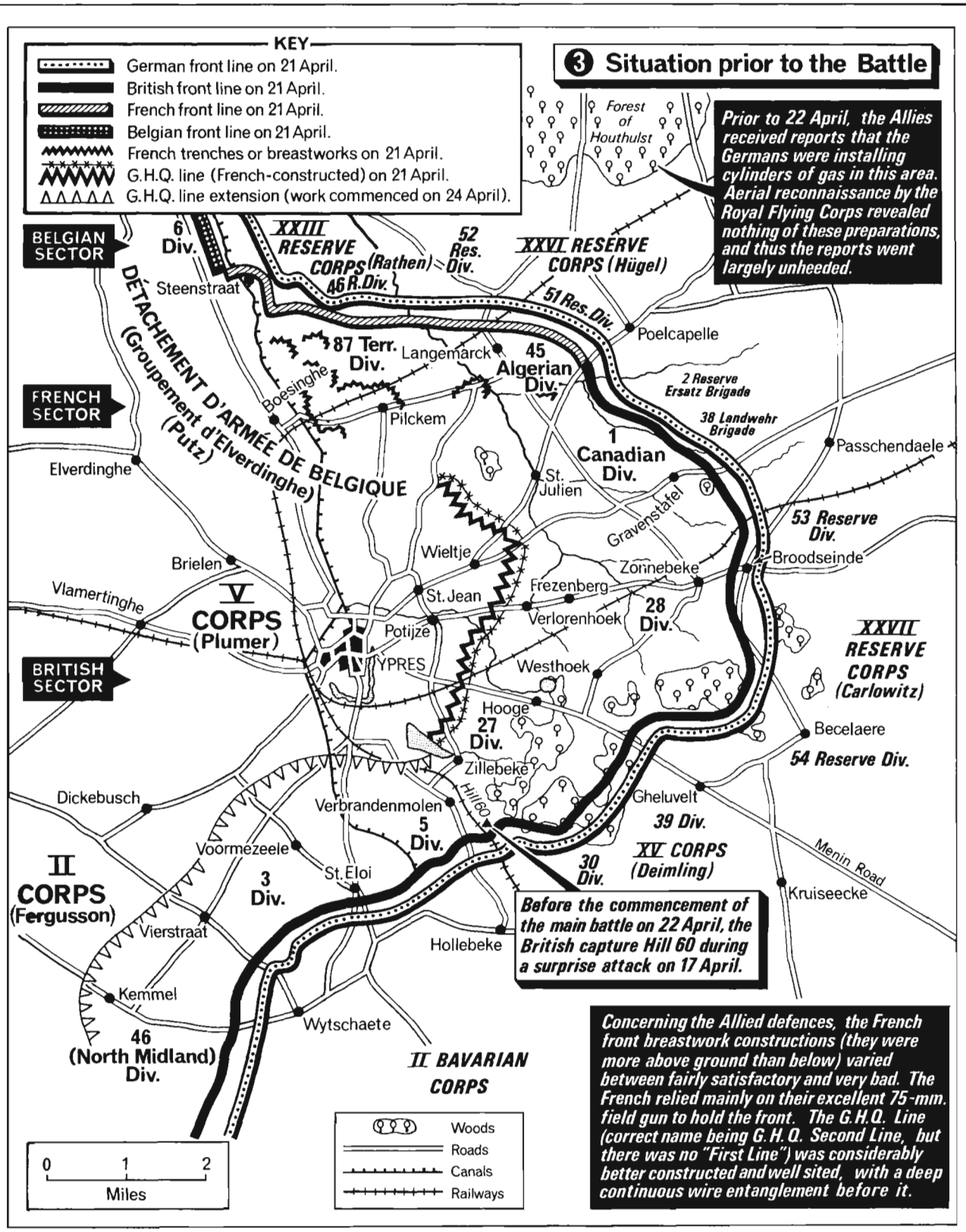


# "SECOND YPRES" APRIL-MAY 1915

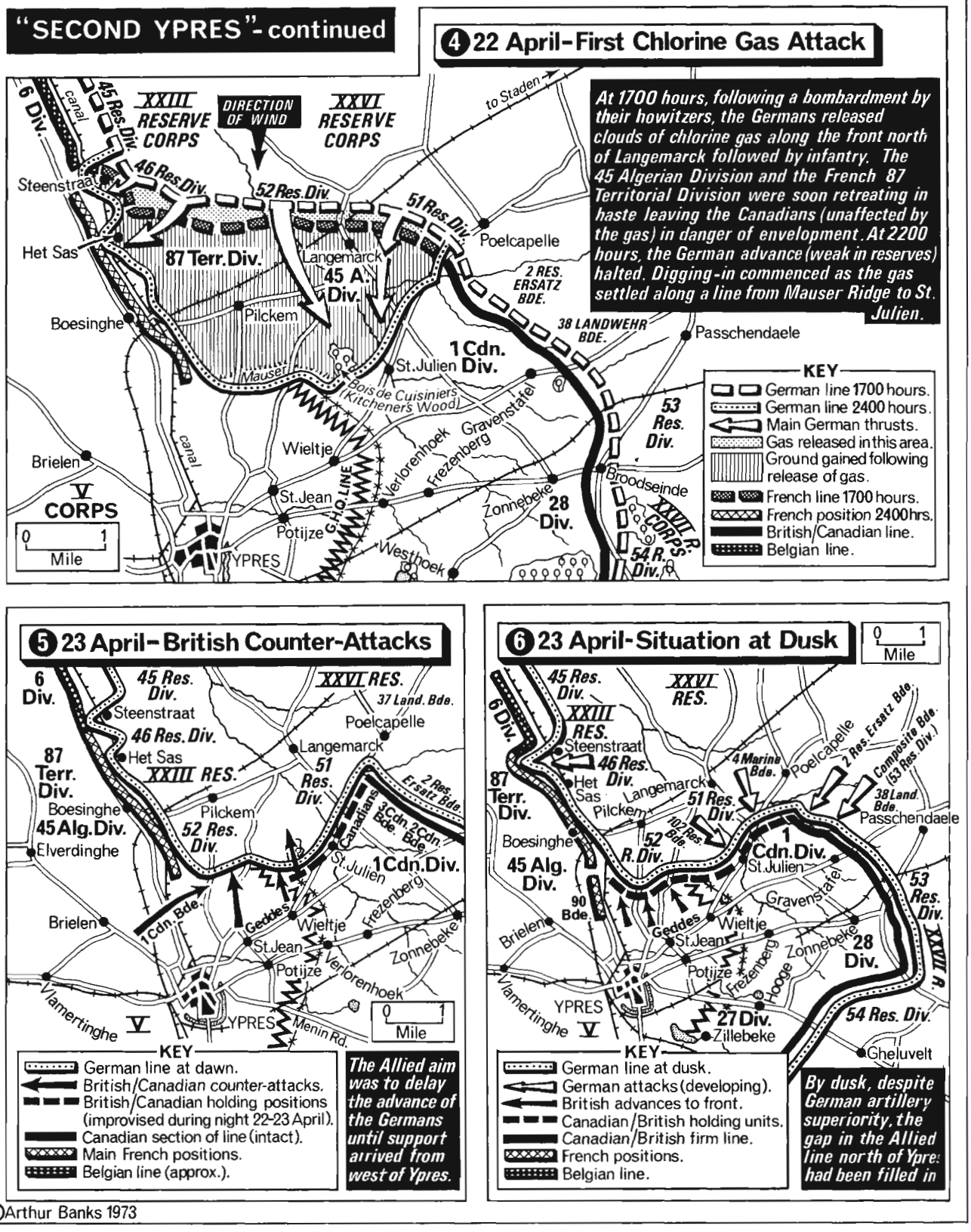


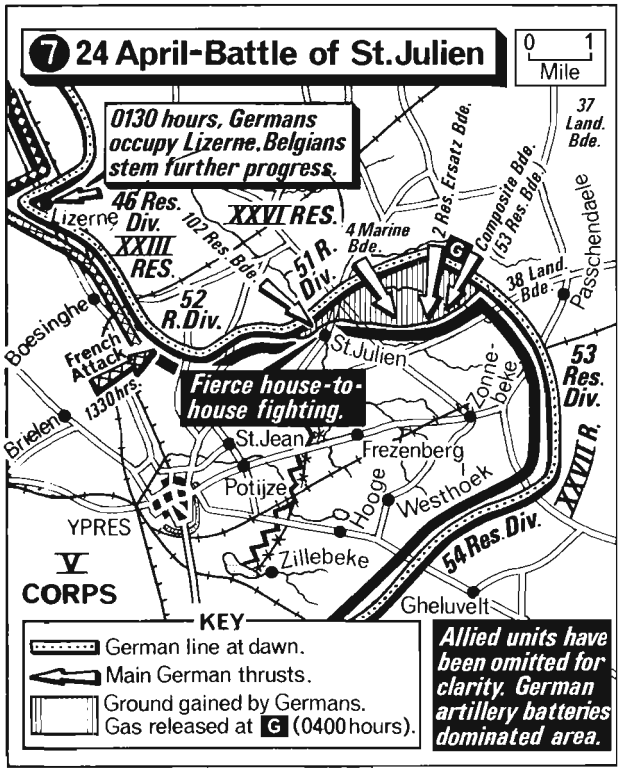

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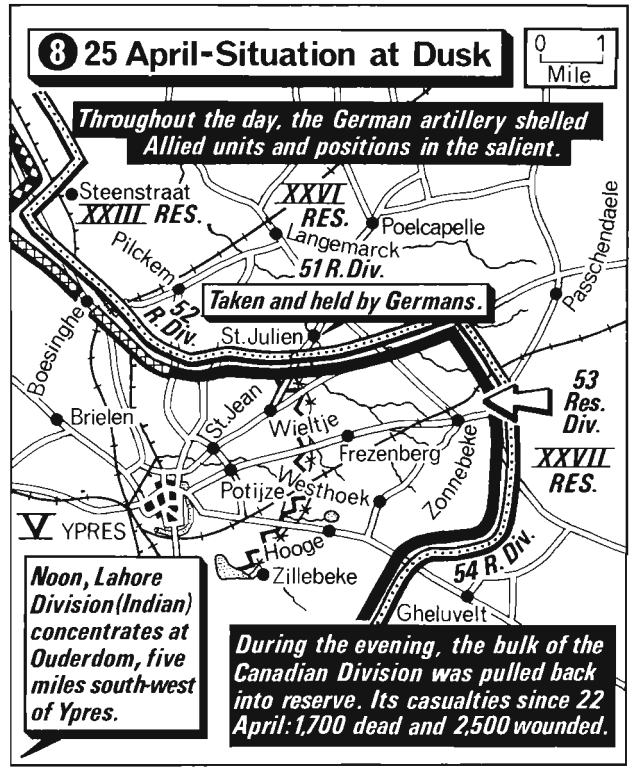

KEY
German front line on 21 April.
British front line on 21 April.
French front line on 21 April.
Belgian front line on 21 April.
French trenches or breastworks on 21 April.
G.H.Q. line (French-constructed) on 21 April.
G.H.Q. line extension (work commenced on 24 April).
3 Situation prior to the Battle
Prior to 22 April, the Allies received reports that the Germans were installing cylinders of gas in this area. Aerial reconnaissance by the Royal Flying Corps revealed nothing of these preparations, and thus the reports went largely unheeded.
Forest of Houthulst
BELGIAN SECTOR
6 Div.
XXIII RESERVE CORPS (Rathen)
46 R.Div.
52 Res. Div.
XXVI RESERVE CORPS (Hügel)
51 Res. Div.
Steenstraat
Poelcapelle
87 Terr. Div.
Langemarck
45 Algerian Div.
2 Reserve Ersatz Brigade
38 Landwehr Brigade
FRENCH SECTOR
DÉTACHEMENT D'ARMÉE DE BELGIQUE (Groupement d'Elverdinghe) (Putz)
Boesinghe
Pilckem
Passchendaele
Elverdinghe
1 Canadian Div.
St. Julien
Gravenstafel
53 Reserve Div.
Wieltje
Broodseinde
Brielen
Zonnebeke
Vlamertinghe
V CORPS (Plumer)
St. Jean
Frezenberg
28 Div.
Potijze
Verlorenhoek
YPRES
Westhoek
BRITISH SECTOR
XXVII RESERVE CORPS (Carlowitz)
Hooge
27 Div.
Becelaere
54 Reserve Div.
Zillebeke
Dickebusch
Verbrandenmolen
Hill 60
Gheluvelt
39 Div.
5 Div.
Voormezeele
30 Div.
XV CORPS (Deimling)
Menin Road
II CORPS (Fergusson)
St. Eloi
3 Div.
Kruiseecke
Before the commencement of the main battle on 22 April, the British capture Hill 60 during a surprise attack on 17 April.
Vierstraat
Hollebeke
Kemmel
Wytschaete
46 (North Midland) Div.
II BAVARIAN CORPS
Concerning the Allied defences, the French front breastwork constructions (they were more above ground than below) varied between fairly satisfactory and very bad. The French relied mainly on their excellent 75-mm. field gun to hold the front. The G.H.Q. Line (correct name being G.H.Q. Second Line, but there was no "First Line") was considerably better constructed and well sited, with a deep continuous wire entanglement before it.
Woods
Roads
Canals
Railways
0 1 2
Miles

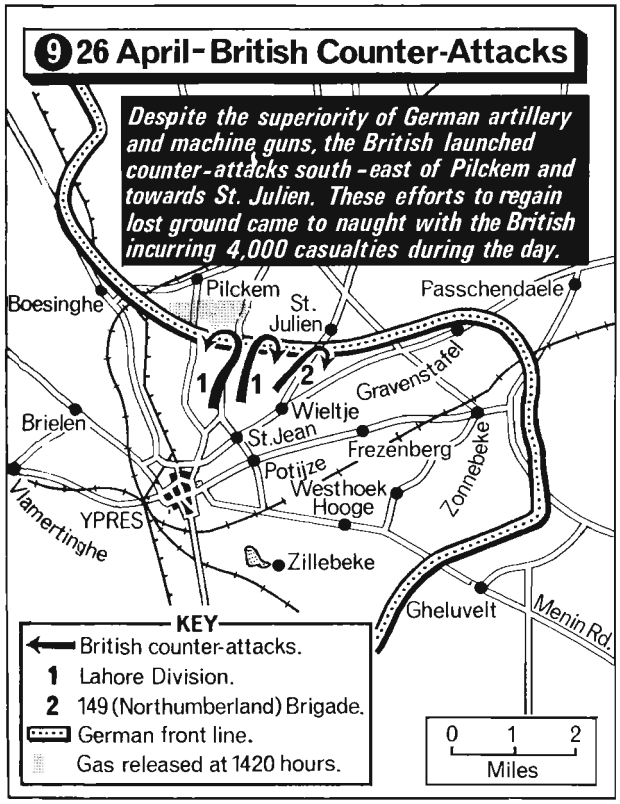
# "SECOND YPRES" - continued

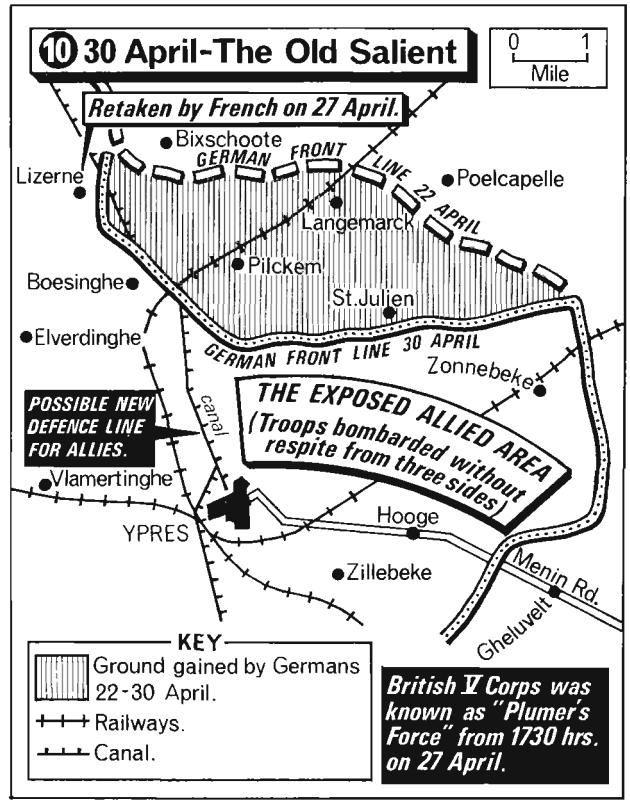



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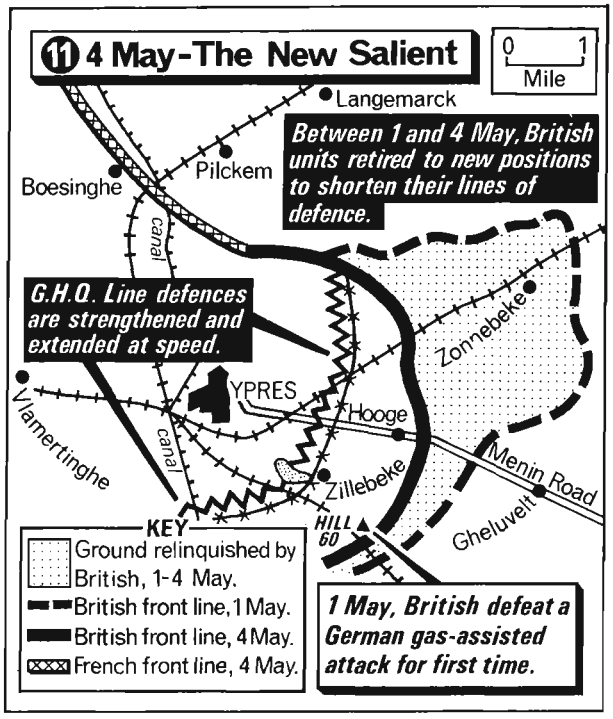

7 24 April-Battle of St.Julien
0 1 Mile
0130 hours, Germans occupy Lizerne. Belgians stem further progress.
46 Res. Div.
XXVI RES.
XXIII RES.
102 Res. Bde.
4 Marine Bde.
2 Res. Ersatz Bde.
Composite Bde. (153 Res. Bde.)
37 Land. Bde.
51 R. Div.
38 Land. Bde.
52 R. Div.
French Attack 1330 hrs.
Fierce house-to-house fighting.
53 Res. Div.
XXVII R.
54 Res. Div.
Lizerne
Boesinghe
Brielen
St.Julien
St.Jean
Frezenberg
Potijze
Hooge
Westhoek
Zonnebeke
Passchendaele
YPRES
V CORPS
Zillebeke
Gheluvelt
KEY
German line at dawn.
Main German thrusts.
Ground gained by Germans.
Gas released at G (0400 hours).
Allied units have been omitted for clarity. German artillery batteries dominated area.

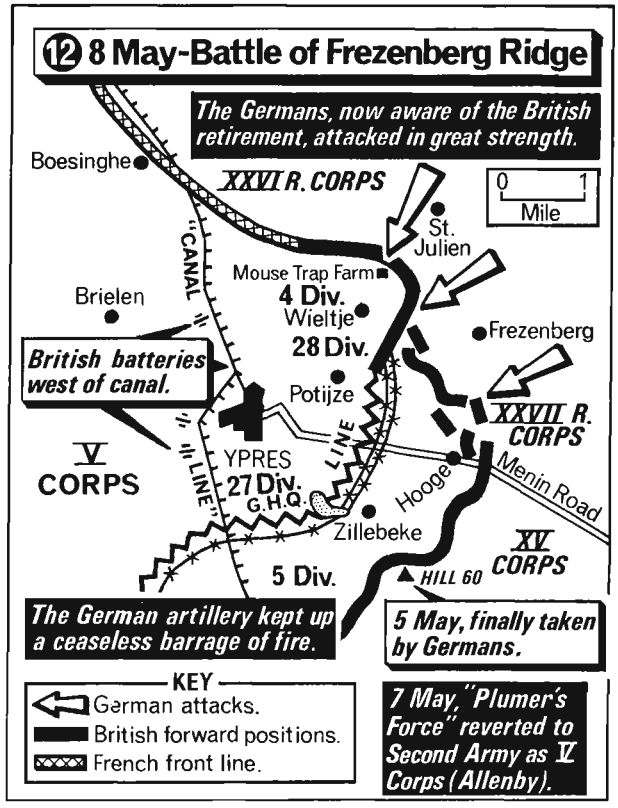

8 25 April-Situation at Dusk
0 1 Mile
Throughout the day, the German artillery shelled Allied units and positions in the salient.
Steenstraat
XXIII RES.
XXVI RES.
Poelcapelle
Langemarck
51 R. Div.
Pilckem
52 R. Div.
Taken and held by Germans.
St.Julien
Passchendaele
Boesinghe
Brielen
St.Jean
Wieltje
Frezenberg
Potijze
Westhoek
Zonnebeke
53 Res. Div.
XXVII RES.
V YPRES
Hooge
Zillebeke
54 R. Div.
Gheluvelt
Noon, Lahore Division (Indian) concentrates at Ouderdom, five miles south-west of Ypres.
During the evening, the bulk of the Canadian Division was pulled back into reserve. Its casualties since 22 April: 1,700 dead and 2,500 wounded.

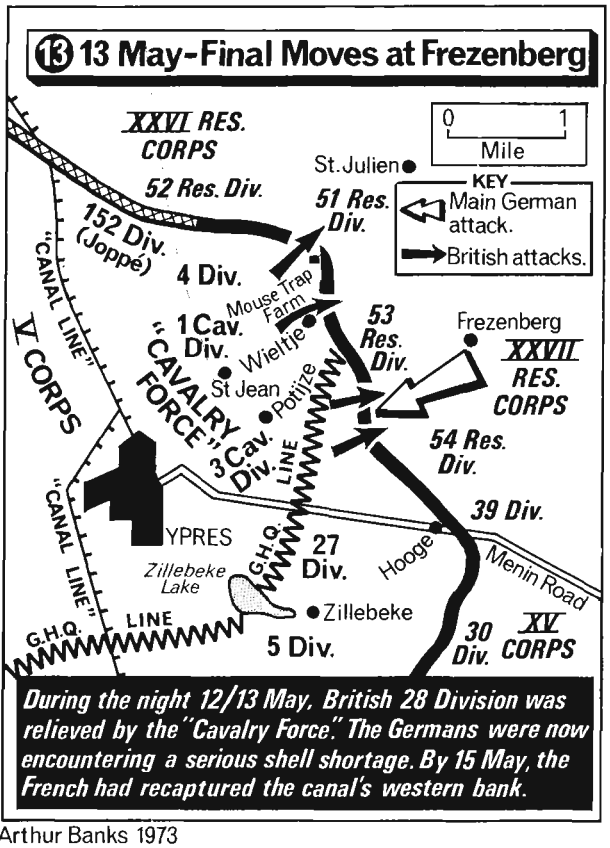

9 26 April-British Counter-Attacks
Despite the superiority of German artillery and machine guns, the British launched counter-attacks south-east of Pilckem and towards St. Julien. These efforts to regain lost ground came to naught with the British incurring 4,000 casualties during the day.
Boesinghe
Pilckem
St. Julien
Passchendaele
1
1
2
Gravenstafel
Wieltje
Brielen
St.Jean
Frezenberg
Potijze
Westhoek
Hooge
Zonnebeke
Vlamertinghe
YPRES
Zillebeke
Gheluvelt
Menin Rd.
KEY
British counter-attacks.
1 Lahore Division.
2 149 (Northumberland) Brigade.
German front line.
Gas released at 1420 hours.
0 1 2 Miles

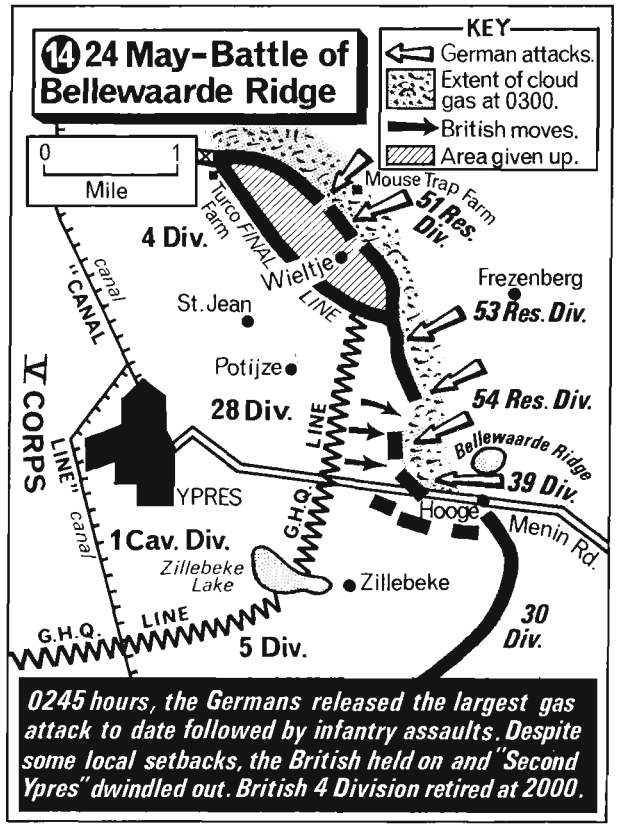

10 30 April-The Old Salient
0 1 Mile
Retaken by French on 27 April.
Bixschoote
GERMAN FRONT LINE 22 APRIL
Lizerne
Poelcapelle
Langemarck
Pilckem
Boesinghe
St.Julien
Elverdinghe
GERMAN FRONT LINE 30 APRIL
Zonnebeke
POSSIBLE NEW DEFENCE LINE FOR ALLIES.
canal
THE EXPOSED ALLIED AREA (Troops bombarded without respite from three sides)
Vlamertinghe
YPRES
Hooge
Zillebeke
Menin Rd.
Gheluvelt
KEY
Ground gained by Germans 22-30 April.
Railways.
Canal.
British V Corps was known as "Plumer's Force" from 1730 hrs. on 27 April.

# "SECOND YPRES" - continued

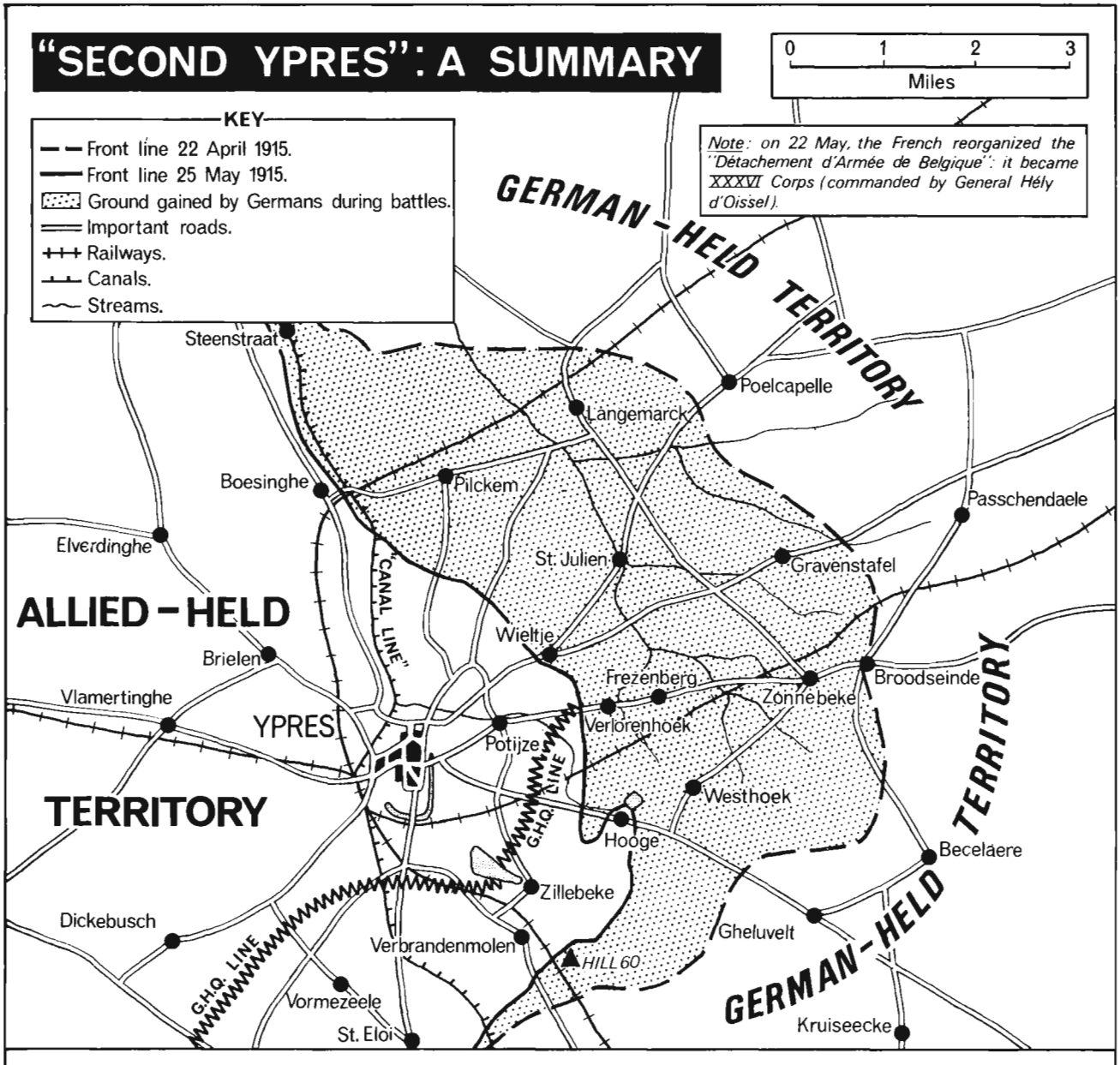



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**BRITISH CASUALTIES (59,275)**

| | |
|---|---|
| 1 Cavalry Division : | 1,203 |
| 2 Cavalry Division : | 244 |
| 3 Cavalry Division : | 1,618 |
| 4 Division : | 10,859 |
| 5 Division : | 7,994 |
| 27 Division : | 7,263 |
| 28 Division : | 15,533 |
| 50 Division : | 5,204 |
| 1 Canadian Division : | 5,469 |
| Lahore Division : | 3,888 |

**GERMAN CASUALTIES (34,933)**

| | |
|---|---|
| XXIII Reserve Corps : | 10,592 |
| XXVI Reserve Corps : | 12,845 |
| XXVII Reserve Corps : | 8,652 |
| XV Corps : | 2,844 |

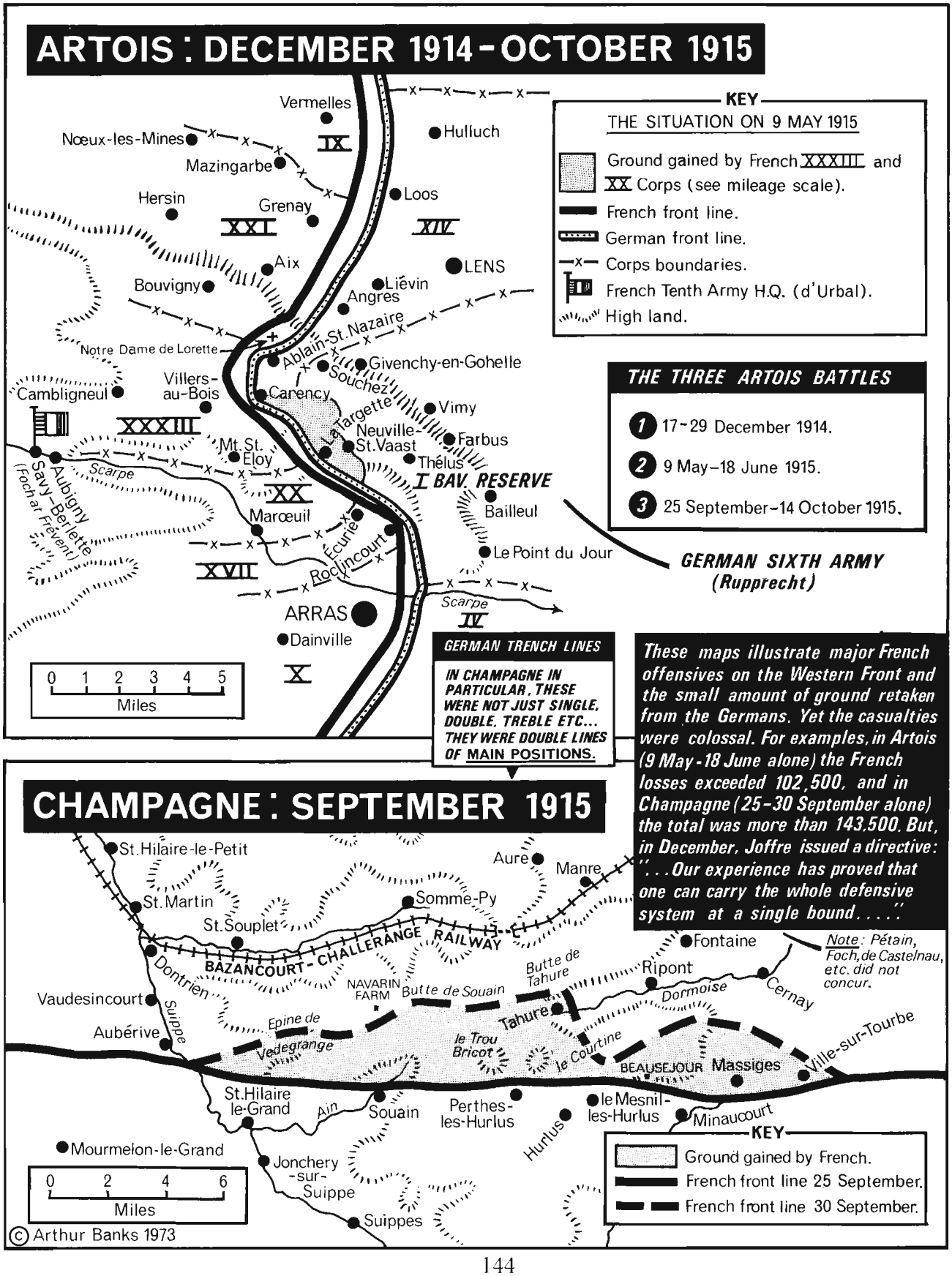
**FRENCH CASUALTIES (10,000)**

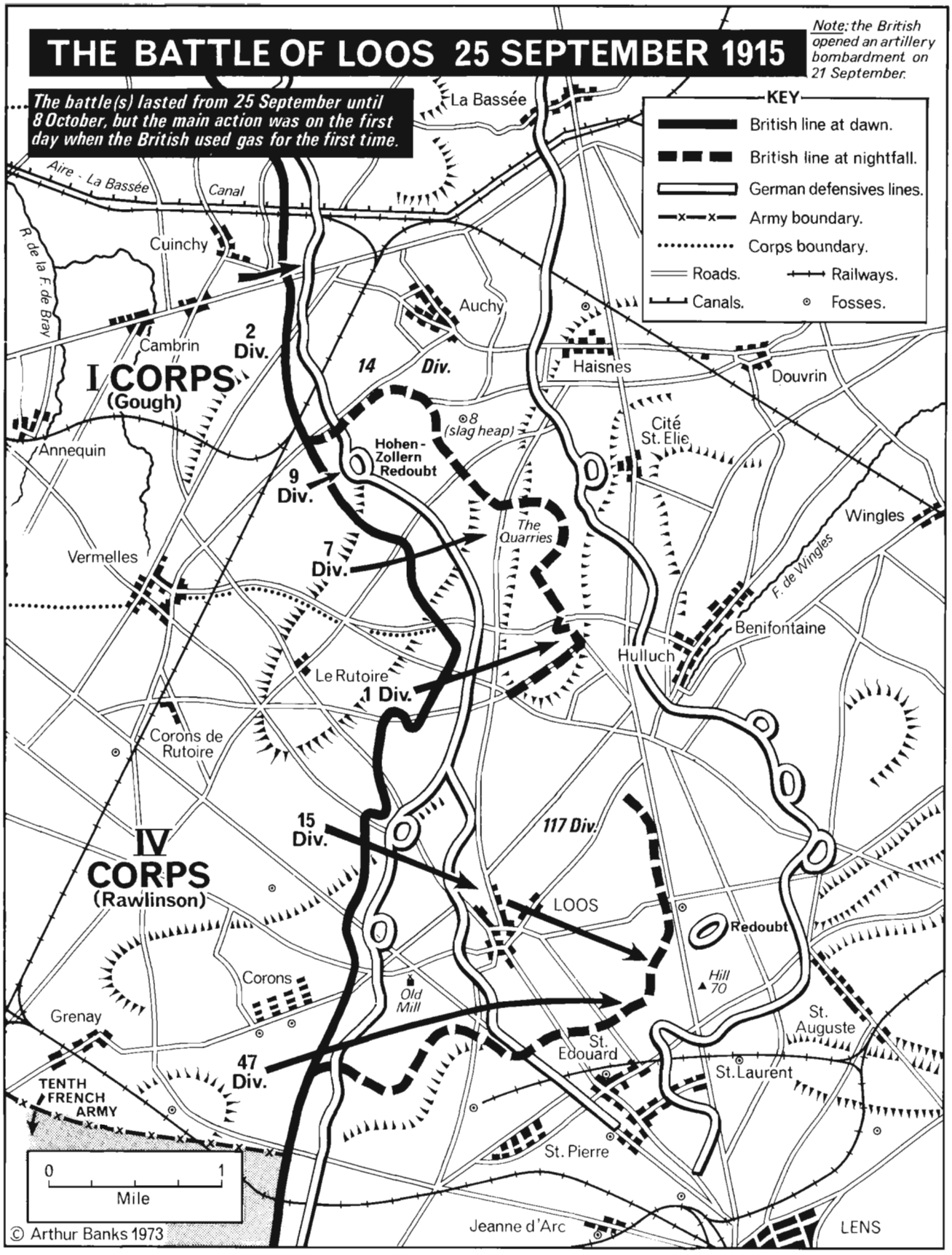
ESTIMATE — Precise figs. unknown

**BELGIAN CASUALTIES (1,530)**

*BY THE CLOSE OF "SECOND YPRES", THE GERMANS HAD GAINED SOME GROUND BUT THE SALIENT STILL REMAINED, ALBEIT REDUCED IN SIZE. MORE IMPORTANT FOR THE FUTURE, THEY HAD DISCLOSED THEIR SECRET WEAPON (GAS) PREMATURELY, AS THEY WERE NOT SUFFICIENTLY EQUIPPED TO EXPLOIT THEIR INITIAL SUCCESS OF 22 APRIL. ON THE BRITISH SIDE, THE BATTLES WERE MARKED BY INDECISION AMONG THE HIGHER RANKS AS TO THE CORRECT DEFENSIVE ACTION TO EMPLOY, AND GENERAL SMITH-DORRIEN (2 ARMY COMMANDER) WAS DISMISSED ON 6 MAY AS A RESULT OF DISSENSION BETWEEN HIMSELF AND THE COMMANDER-IN-CHIEF, FIELD-MARSHAL SIR JOHN FRENCH.*

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ARTOIS : DECEMBER 1914 - OCTOBER 1915
KEY
THE SITUATION ON 9 MAY 1915
Ground gained by French XXXIII and XX Corps (see mileage scale).
French front line.
German front line.
Corps boundaries.
French Tenth Army H.Q. (d'Urbal).
High land.
THE THREE ARTOIS BATTLES
1 17-29 December 1914.
2 9 May–18 June 1915.
3 25 September–14 October 1915.
GERMAN SIXTH ARMY (Rupprecht)
Vermelles
Hulluch
Nœux-les-Mines
Mazingarbe
Hersin
Grenay
Loos
Aix
LENS
Bouvigny
Liévin
Angres
Notre Dame de Lorette
Ablain-St.Nazaire
Souchez
Givenchy-en-Gohelle
Cambligneul
Villers-au-Bois
Carency
Targette
Vimy
Neuville-St.Vaast
Farbus
Mt.St.Eloy
Thélus
Scarpe
Savy-Berlette (Foch at Frévent)
Aubigny
I BAV. RESERVE
Bailleul
Marœuil
Ecurie
Roclincourt
Le Point du Jour
ARRAS
Scarpe
Dainville
0 1 2 3 4 5 Miles
GERMAN TRENCH LINES
IN CHAMPAGNE IN PARTICULAR, THESE WERE NOT JUST SINGLE, DOUBLE, TREBLE ETC... THEY WERE DOUBLE LINES OF MAIN POSITIONS.
These maps illustrate major French offensives on the Western Front and the small amount of ground retaken from the Germans. Yet the casualties were colossal. For examples, in Artois (9 May - 18 June alone) the French losses exceeded 102,500, and in Champagne (25-30 September alone) the total was more than 143,500. But, in December, Joffre issued a directive: "...Our experience has proved that one can carry the whole defensive system at a single bound...."
CHAMPAGNE : SEPTEMBER 1915
St.Hilaire-le-Petit
Aure
Manre
St.Martin
Somme-Py
St.Souplet
BAZANCOURT - CHALLERANGE RAILWAY
Fontaine
Note: Pétain, Foch, de Castelnau, etc. did not concur.
Dontrien
Butte de Tahure
Ripont
NAVARIN FARM
Butte de Souain
Dormoise
Cernay
Vaudesincourt
Suippe
Tahure
Aubérive
Epine de Vedegrange
le Trou Bricot
le Courtine
BEAUSEJOUR
Massiges
Ville-sur-Tourbe
St.Hilaire le-Grand
Ain
Souain
Perthes-les-Hurlus
le Mesnil-les-Hurlus
Minaucourt
Hurlus
Mourmelon-le-Grand
Jonchery-sur-Suippe
Suippes
0 2 4 6 Miles
KEY
Ground gained by French.
French front line 25 September.
French front line 30 September.
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THE BATTLE OF LOOS 25 SEPTEMBER 1915
Note: the British opened an artillery bombardment on 21 September.
The battle(s) lasted from 25 September until 8 October, but the main action was on the first day when the British used gas for the first time.
KEY
British line at dawn.
British line at nightfall.
German defensives lines.
Army boundary.
Corps boundary.
Roads.
Railways.
Canals.
Fosses.
La Bassée
Aire - La Bassée Canal
R de la F. de Bray
Cuinchy
Auchy
Cambrin
2 Div.
I CORPS (Gough)
14 Div.
Haisnes
Douvrin
Annequin
8 (slag heap)
Hohen - Zollern Redoubt
Cité St. Elie
9 Div.
The Quarries
Wingles
7 Div.
Vermelles
F. de Wingles
Benifontaine
Hulluch
Le Rutoire
1 Div.
Corons de Rutoire
15 Div.
117 Div.
IV CORPS (Rawlinson)
LOOS
Redoubt
Hill 70
Corons
Old Mill
Grenay
St. Auguste
St. Edouard
St. Laurent
47 Div.
TENTH FRENCH ARMY
St. Pierre
0
1
Mile
Jeanne d'Arc
LENS
© Arthur Banks 1973

# THE WAR IN 1916

The costly failures of 1915 had led to changes in command before the end of the year. In the autumn, against the advice of his ministers, Tsar Nicholas II assumed command on the Eastern Front, sending Grand Duke Nicholas to hold the Caucasus against the Turks (page 163). The heavy casualties at Loos discredited Sir John French who, in December, was replaced as British commander-in-chief by Sir Douglas Haig. At the same time Kitchener, though remaining War Minister, surrendered responsibility for operations to a new Chief of the Imperial General Staff, Sir William Robertson, an ex-footman who had enlisted as a private thirty-nine years before. Only in France did Joffre's supremacy pass unchallenged.

Haig and Robertson were a formidable partnership. They insisted that, after the frustrations of Gallipoli, the Western Front was to have priority over all other Fronts. This decision was endorsed by the Cabinet on 28 December 1915; it was welcomed by Joffre. His own plans for 1916 looked for wearing-down operations by his allies preparatory to a major offensive by the French later in the spring. But the initiative on the Western Front was seized by the Germans. Falkenhayn won the Kaiser's consent for a different concept of military operations: he proposed massive attack on a narrow sector where reasons of national sentiment would 'compel the French General Staff to throw in every man they have'. The sector he recommended for this attempt 'to bleed France white' (Falkenhayn's own expression) was Verdun, the historic city on the Meuse whose fall in 1792 precipitated the panic September massacres in revolutionary Paris.

The battle of Verdun, which began with a concentrated artillery barrage on 21 February 1916 and continued for 300 days, overshadowed—and to some extent predetermined—all other military events of the year. Verdun, like Ypres, never fell to the Germans; it consumed Joffre's reserves; it left the French Army permanently shell-shocked; but it also brought disillusionment to the Germans, who sustained a third of a million casualties in occupying a crater filled wasteland one-sixth the size of the Isle of Wight. Never again was morale steady, either in France or Germany.

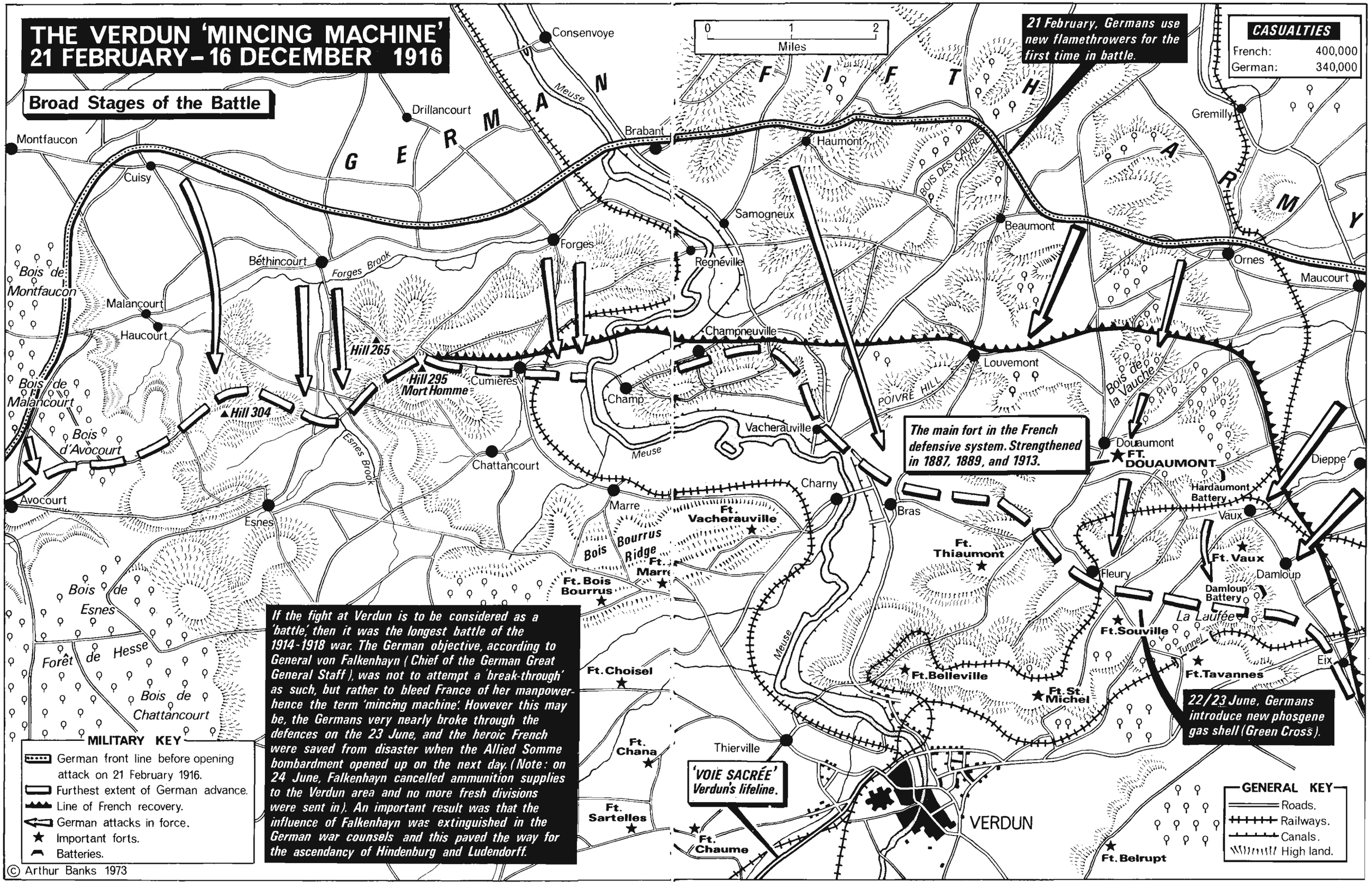
Ultimately the defenders of Verdun were relieved by actions elsewhere. By midsummer Haig, supported by Foch's Sixth Army, was ready to attack on the Somme. 20,000 British soldiers perished on the first day of the battle, more than were killed in action during the five years of Wellington's Peninsular Campaign. Yet, despite the terrible losses, Haig continued to pound the German lines on the Somme, employing in September, for the first time, tanks to cross trenches and destroy machine gun nests. The Somme was a traumatic as Verdun.

Success in 1916 came on the south-west sector of the Eastern Front where General Brusilov convinced the Tsar that it was possible to break through the Austrian defences and, if assisted by an enveloping movement farther north, to knock Austria-Hungary out of the war. Brusilov forced the Austrians to fall back sixty or seventy miles in confusion: the Germans rushed divisions from the Western Front to plug the gap, the Austrians relaxed pressure on Italy, and even a Turkish Corps was hurried to Galicia. The northern attack never materialised, but Brusilov gained a remarkable triumph, sufficient to tempt Rumania into the war as an ally, although the Rumanians were speedily defeated (page 162). The victory over Rumania was won by Mackensen and Falkenhayn, who had been replaced as Chief of the German General Staff by Hindenburg when the Kaiser despaired of his Verdun policy at the end of August.

At sea, 1916 was the year of Jutland (pages 256–261), of intensified measures by the British to blockade Germany, and of a fifty per cent increase over the 1915 figures for the tonnage of Allied shipping sunk by U-boats. The outlook for 1917 was ominous.

# THE VERDUN 'MINCING MACHINE'
# 21 FEBRUARY – 16 DECEMBER 1916

## Broad Stages of the Battle




**21 February, Germans use new flamethrowers for the first time in battle.**

**CASUALTIES**

| | |
|---|---|
| French: | 400,000 |
| German: | 340,000 |

**The main fort in the French defensive system. Strengthened in 1887, 1889, and 1913.**

**'VOIE SACRÉE' Verdun's lifeline.**

**22/23 June, Germans introduce new phosgene gas shell (Green Cross).**

*If the fight at Verdun is to be considered as a 'battle,' then it was the longest battle of the 1914-1918 war. The German objective, according to General von Falkenhayn (Chief of the German Great General Staff), was not to attempt a 'break-through' as such, but rather to bleed France of her manpower- hence the term 'mincing machine'. However this may be, the Germans very nearly broke through the defences on the 23 June, and the heroic French were saved from disaster when the Allied Somme bombardment opened up on the next day. (Note: on 24 June, Falkenhayn cancelled ammunition supplies to the Verdun area and no more fresh divisions were sent in). An important result was that the influence of Falkenhayn was extinguished in the German war counsels and this paved the way for the ascendancy of Hindenburg and Ludendorff.*

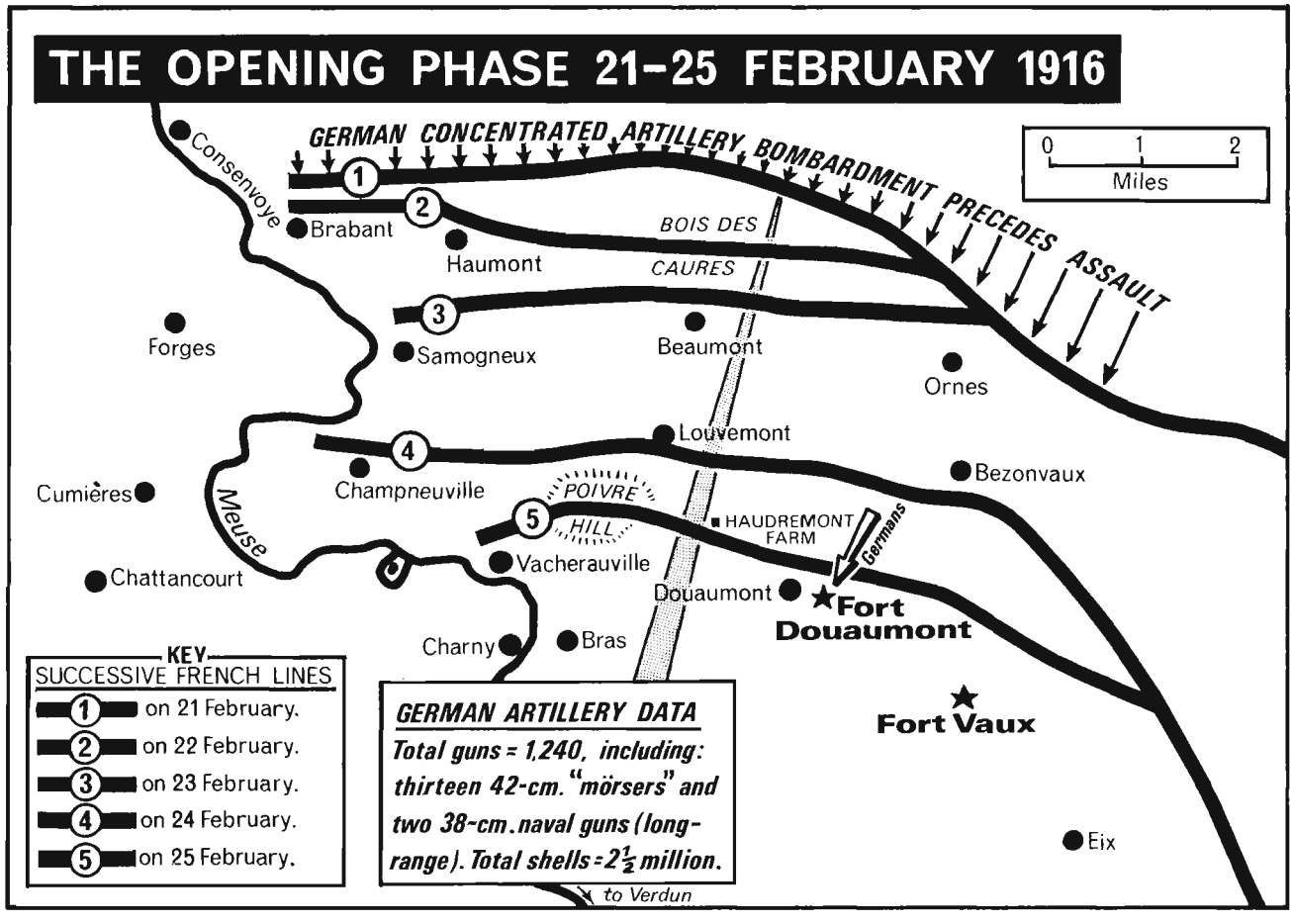
**MILITARY KEY**

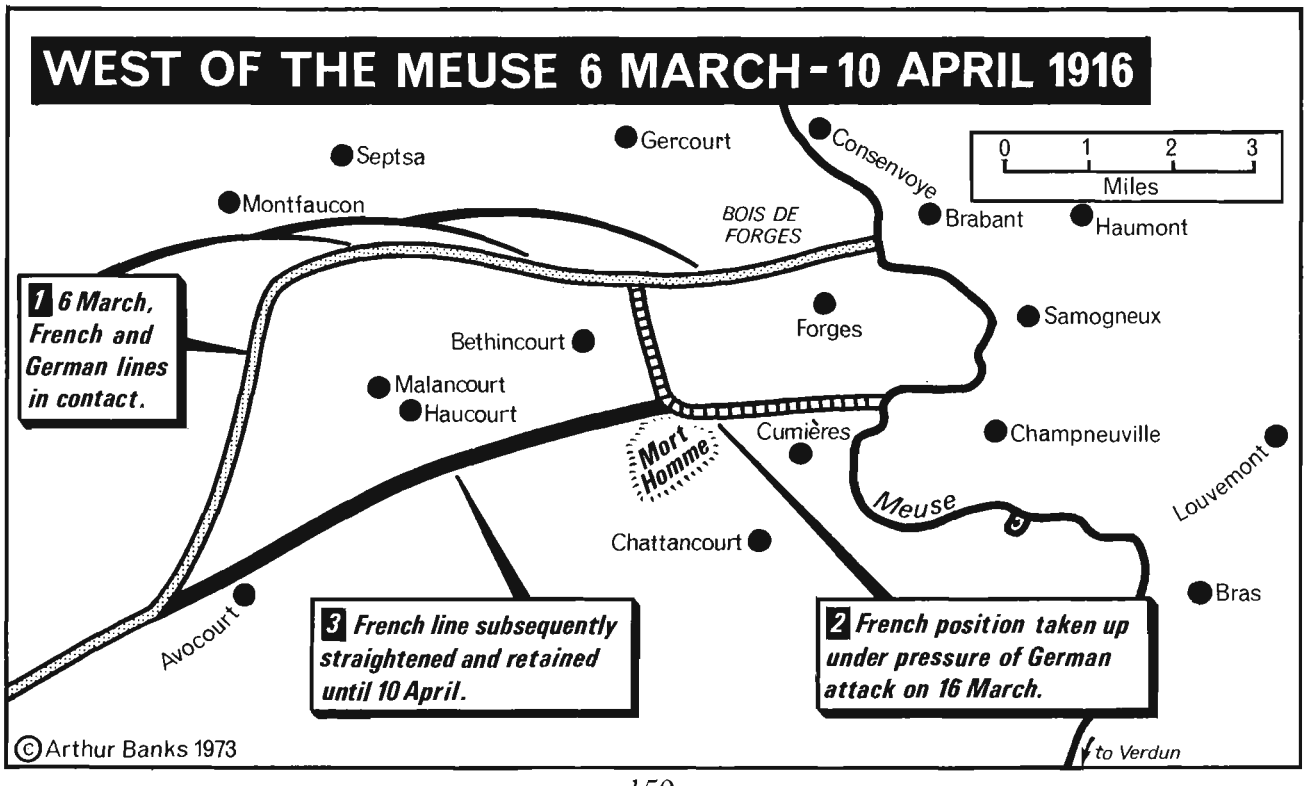
- German front line before opening attack on 21 February 1916.
- Furthest extent of German advance.
- Line of French recovery.
- German attacks in force.
- ★ Important forts.
- Batteries.

**GENERAL KEY**

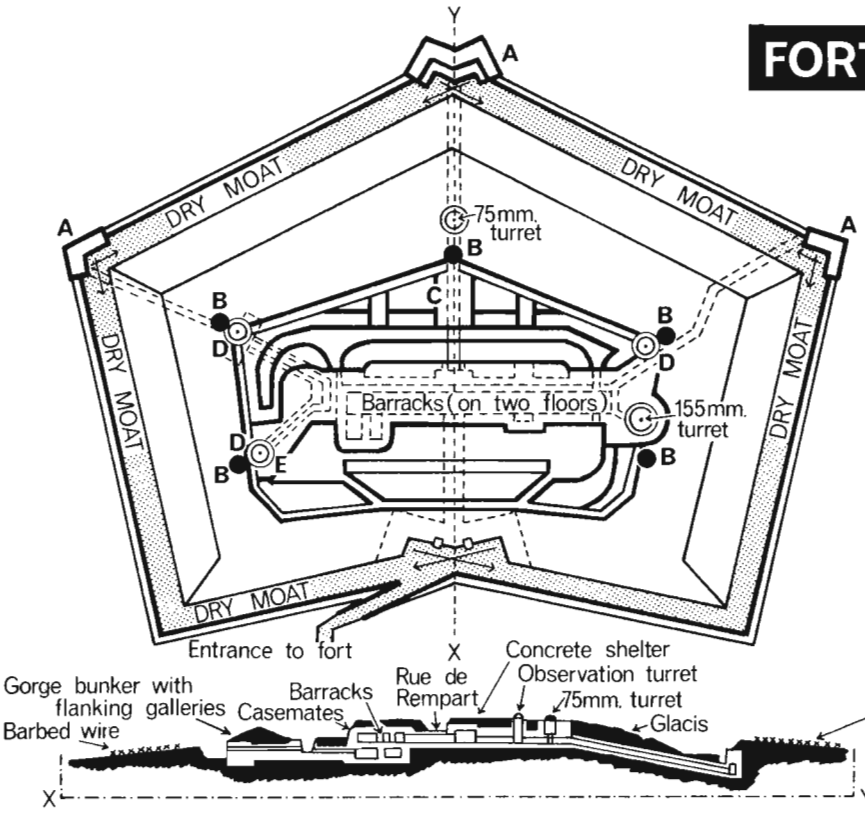
- Roads.
- Railways.
- Canals.
- High land.

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THE OPENING PHASE 21–25 FEBRUARY 1916
GERMAN CONCENTRATED ARTILLERY BOMBARDMENT PRECEDES ASSAULT
0 1 2
Miles
Consenvoye
Brabant
Haumont
BOIS DES
CAURES
Forges
Samogneux
Beaumont
Ornes
Louvemont
Bezonvaux
Cumières
Champneuville
POIVRE
HILL
HAUDREMONT FARM
Germans
Meuse
Chattancourt
Vacherauville
Douaumont
Fort Douaumont
Charny
Bras
Fort Vaux
Eix
to Verdun
KEY
SUCCESSIVE FRENCH LINES
1 on 21 February.
2 on 22 February.
3 on 23 February.
4 on 24 February.
5 on 25 February.
GERMAN ARTILLERY DATA
Total guns = 1,240, including: thirteen 42-cm. "mörsers" and two 38-cm. naval guns (long-range). Total shells = 2½ million.


WEST OF THE MEUSE 6 MARCH - 10 APRIL 1916
0 1 2 3
Miles
Septsa
Gercourt
Consenvoye
Montfaucon
BOIS DE FORGES
Brabant
Haumont
1 6 March, French and German lines in contact.
Bethincourt
Forges
Samogneux
Malancourt
Haucourt
Mort Homme
Cumières
Champneuville
Meuse
Louvemont
Chattancourt
Bras
Avocourt
3 French line subsequently straightened and retained until 10 April.
2 French position taken up under pressure of German attack on 16 March.
© Arthur Banks 1973
to Verdun

# FORT DOUAUMONT




**KEY**

- **A** Counterscarp gallery.
- **B** Observation turrets.
- **C** Magazine.
- **D** Machine gun turrets.
- **E** 'Casemate de Bourges.'
- ⟹ Field of fire.

***The largest work in the French defensive system, this fort (virtually ungarrisoned) was captured by the Germans on 25 February 1916. Over 120,000 shells fell upon it before its recapture by the French on 24 October 1916.***

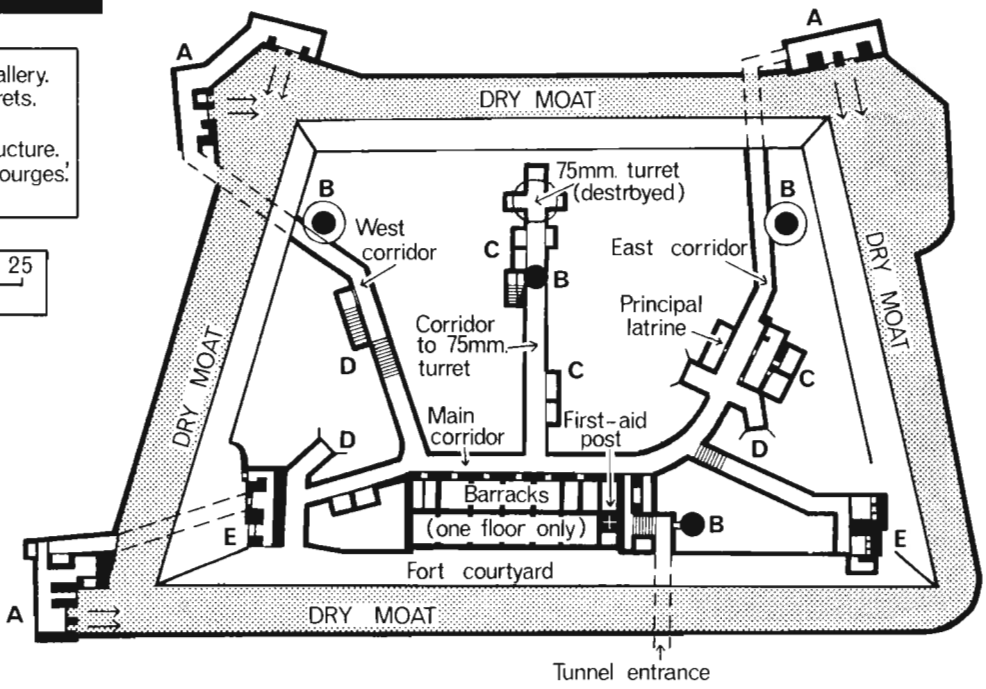
# FORT VAUX

**KEY**

- **A** Counterscarp gallery.
- **B** Observation turrets.
- **C** Magazines.
- **D** Exit to superstructure.
- **E** 'Casemate de Bourges.'
- ⟹ Field of fire.

0 — 25 Yards

***The smallest work in the French defensive system, this fort (after a stubborn and heroic resistance) was captured by the Germans on 7 June 1916. It was retaken by the French on 2 November 1916.***




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# BATTLE OF THE SOMME 1 JULY – 18 NOVEMBER 1916

0 1 2
Miles

*This map illustrates various stages of the Allied Somme offensives. Due, to the necessity of reinforcing Verdun by the French, the main effort fell to the British, especially in view of their increasing strength due to "Kitchener's divisions" and the abandonment of the Gallipoli campaign. These battles marked the emergence of the British army into fighting on the European scale of major operations.*

**CASUALTIES**

| | |
|---|---|
| German | 437,500 |
| British | 420,000 |
| French | 203,000 |

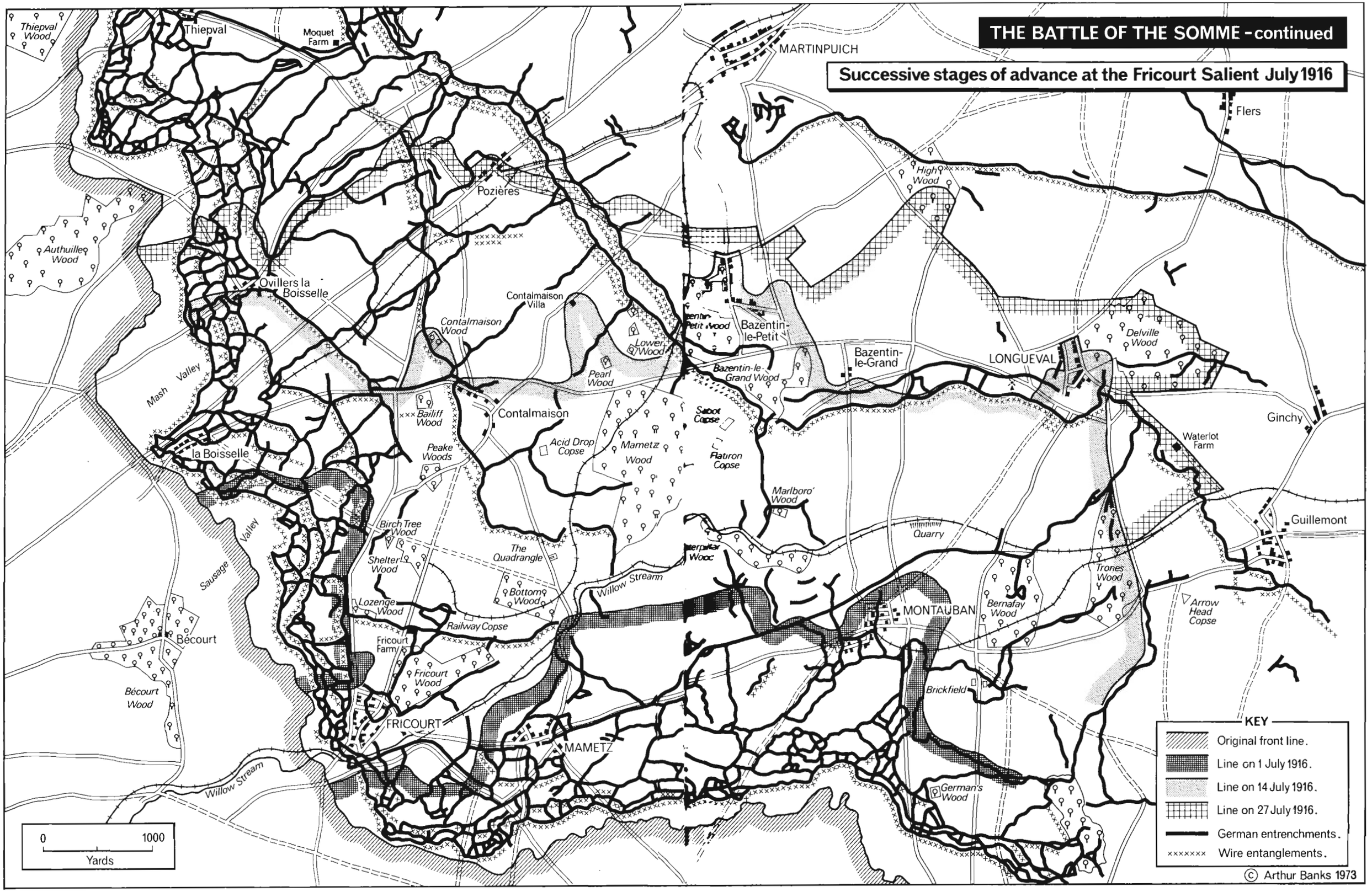
*Commencing 24 June, the Allies launched a week's intensive bombardment of the German lines. On 25 June, the Royal Flying Corps attacked German observation balloons to destroy the "eyes" of the defenders. On 1 July, the Allied infantry attacks went in, and on this day alone, the British suffered 57,540 casualties.*

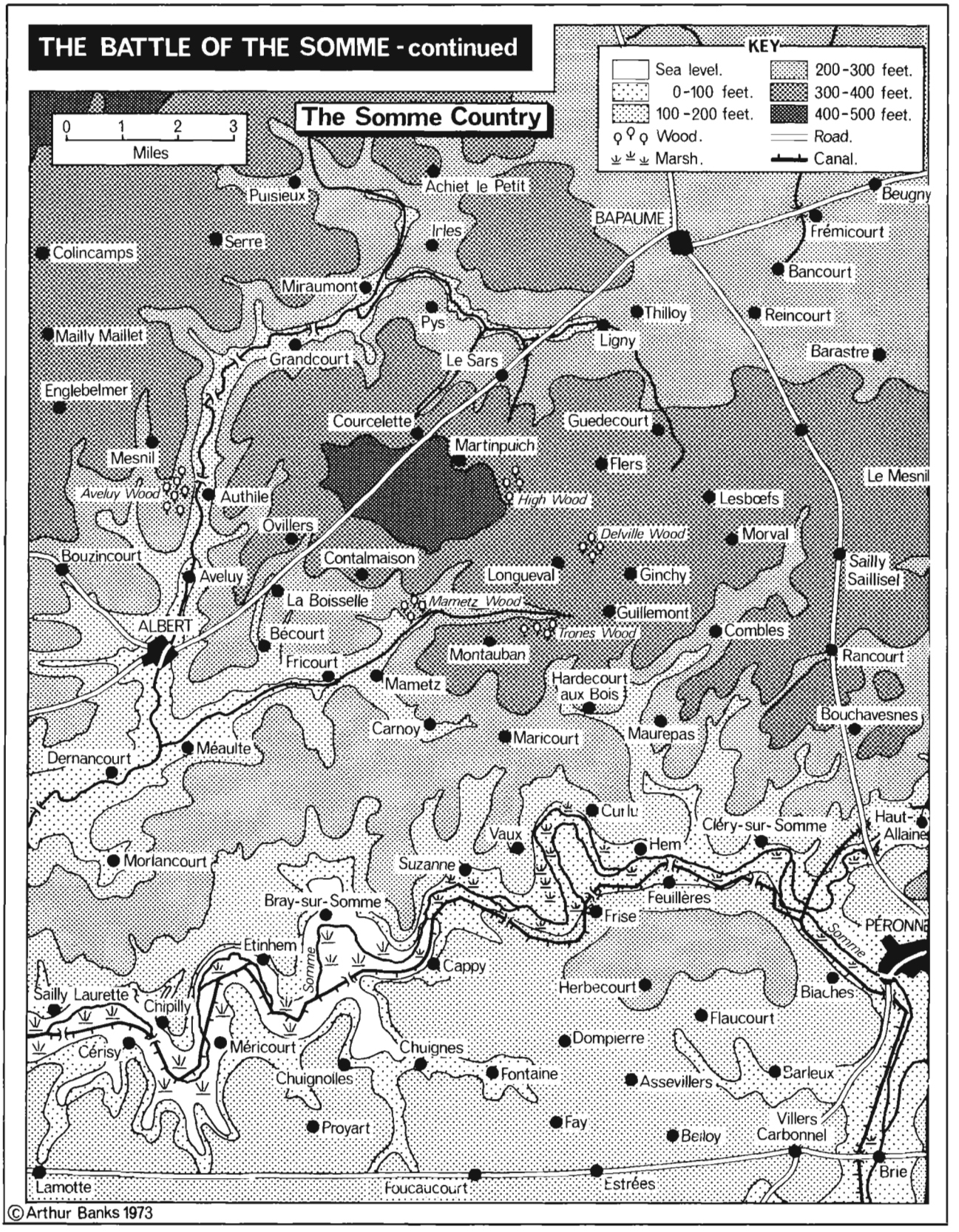
**KEY**

- Front line on 1 July 1916.
- Front line on 17 July 1916.
- Front line on 13 September 1916.
- Front line on 18 November 1916.
- German entrenchments.

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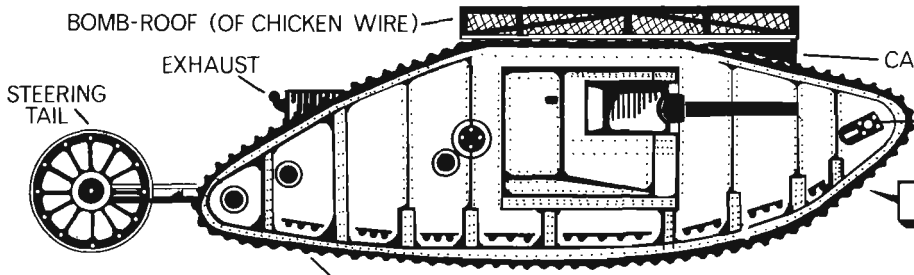
## Successive stages of advance at the Fricourt Salient July 1916



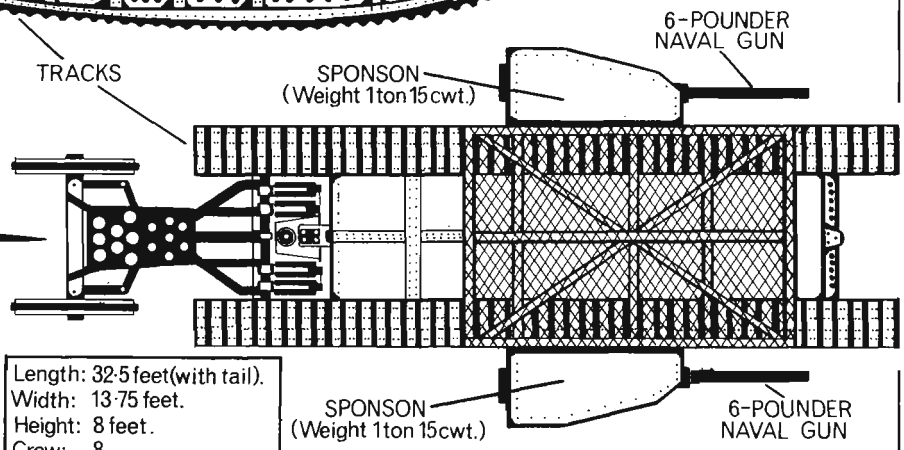

THE BATTLE OF THE SOMME - continued
The Somme Country
KEY
Sea level.
0-100 feet.
100-200 feet.
200-300 feet.
300-400 feet.
400-500 feet.
Wood.
Road.
Marsh.
Canal.
0 1 2 3
Miles
Puisieux
Achiet le Petit
Beugny
BAPAUME
Irles
Frémicourt
Serre
Colincamps
Bancourt
Miraumont
Thilloy
Reincourt
Pys
Mailly Maillet
Ligny
Barastre
Grandcourt
Le Sars
Englebelmer
Courcelette
Guedecourt
Martinpuich
Mesnil
Flers
Le Mesnil
Aveluy Wood
Authile
High Wood
Lesbœfs
Ovillers
Delville Wood
Morval
Bouzincourt
Contalmaison
Sailly Saillisel
Aveluy
Longueval
Ginchy
La Boisselle
Mametz Wood
Guillemont
ALBERT
Bécourt
Trones Wood
Combles
Fricourt
Montauban
Rancourt
Mametz
Hardecourt aux Bois
Bouchavesnes
Carnoy
Maricourt
Maurepas
Méaulte
Dernancourt
Curlu
Cléry-sur-Somme
Vaux
Hem
Morlancourt
Suzanne
Feuillères
Bray-sur-Somme
Frise
PÉRONNE
Somme
Etinhem
Cappy
Herbecourt
Biaches
Sailly Laurette
Chipilly
Flaucourt
Dompierre
Cérisy
Méricourt
Chuignes
Barleux
Chuignolles
Fontaine
Assevillers
Fay
Villers Carbonnel
Proyart
Beiloy
Brie
Lamotte
Foucaucourt
Estrées
© Arthur Banks 1973

# The First Tanks in Action – 15 September 1916

## British Mark I Male Tank
*(of Heavy Section, Machine Gun Corps)*




**SIDE ELEVATION**

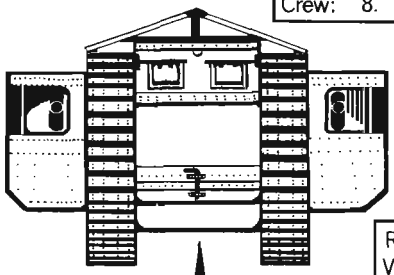



**PLAN VIEW**

*There were two versions of the British Mark I tanks known as males and females.*

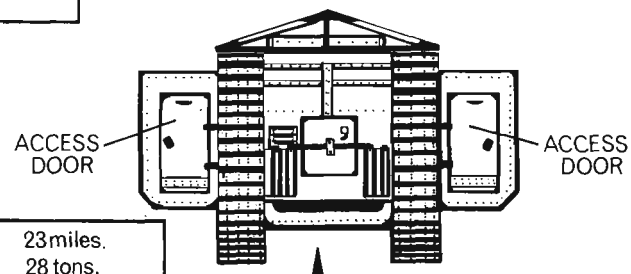
*Male tanks were armed with two 6-pounder naval guns. Female tanks carried two Vickers machine guns within modified sponsons.*

Length: 32·5 feet (with tail).
Width: 13·75 feet.
Height: 8 feet.
Crew: 8.



**FRONT ELEVATION**

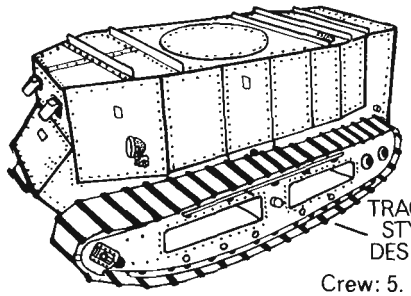
Range: 23 miles.
Weight: 28 tons.
Max. speed: 3·7 m.p.h.
Engine: Daimler 105 h.p.




**REAR ELEVATION**

## EARLY BRITISH TANK DEVELOPMENT

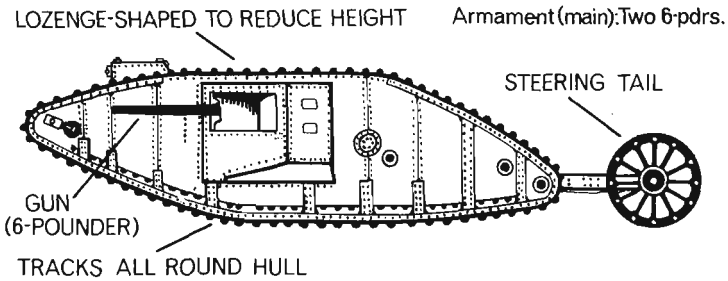
### ① 'LITTLE WILLIE' (experimental)




Crew: 5.
Length: 26·5 feet. Weight: 28 tons. Speed: 3·5 m.p.h.

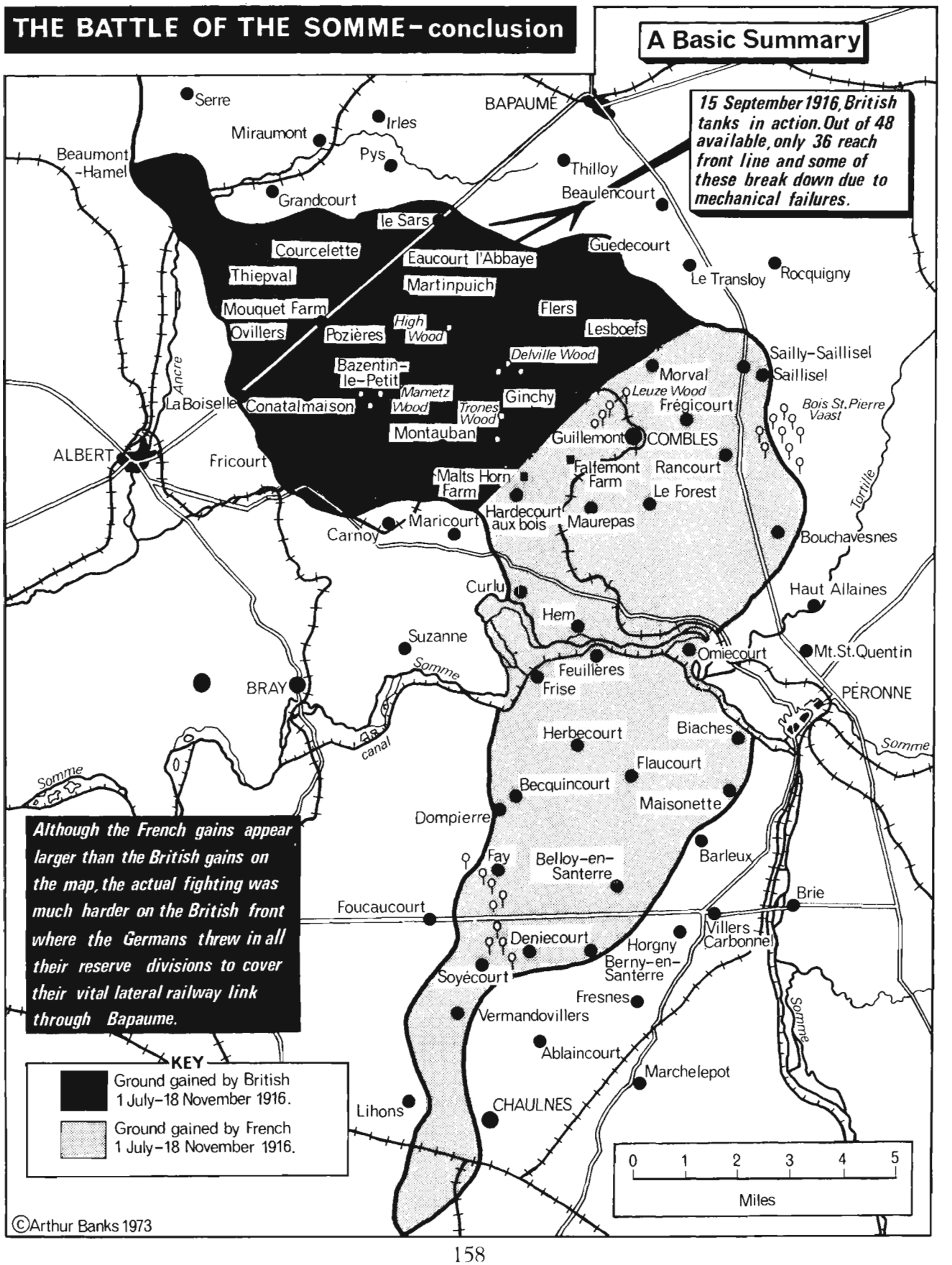
### ② 'MOTHER' (the first real tank)

Maximum speed: 3·7 m.p.h.
Crew: 8.
Engine: Daimler.
Armament (main): Two 6-pdrs.




Length: 32·5 feet. Width: 13·75 feet. Height: 8 feet. Armour: mild steel.

# THE BATTLE OF THE SOMME – conclusion



# THE FRENCH RECOVERY AT VERDUN OCTOBER-DECEMBER 1916

0 1500 Yards

**FORTS**
An evaluation of their importance in future commenced in France. ? Maginot Line (1939).

**AVIATION**
Verdun was *"THE CRUCIBLE IN WHICH THE AVIATION OF THE FRENCH WAS FIRED."* Pétain.

German-occupied territory

Louvemont
POIVRE HILL
BOIS DE LA VAUCHE
Bezonvaux
SUPPORTING UNITS
126 DIVISION (Muteau)
38 DIVISION (Guyot de Salins)
37 DIVISION (Garnier-Duplessis)
133 DIVISION (Passaga)
Douaumont
Fort Douaumont
Recaptured on 24 October.
38 DIVISION (Guyot de Salins)
Never again breached by Germans during 1917-1918.
*It is important to note that Nivelle (director of these operations) replaced Joffre as French C-in-C in November, over the heads of Petain, Foch, etc.*
Vaux
Recaptured on 2 November.
9 DIVISION (Andlauer)
Fort Vaux
Damloup
133 DIVISION (Passaga)
74 DIVISION (Lardemelle)
SUPPORTING UNITS
MANGIN

**KEY**
- French line 23 October.
- French divisions 23 October.
- French line 24 October.
- French division 2 November.
- French divisions 15 December.
- French line 16 December.
- Direction of French attacks.

## THE 'SACRED WAY' (la Voie Sacrée)

*ROAD NAME IMMORTALIZED BY MAURICE BARRÈS.*

VERDUN
Dombasle
Regret
Souhesmes
Meuse
Souilly
Heippes
0 1 2 3 Miles
from Bar-le-Duc

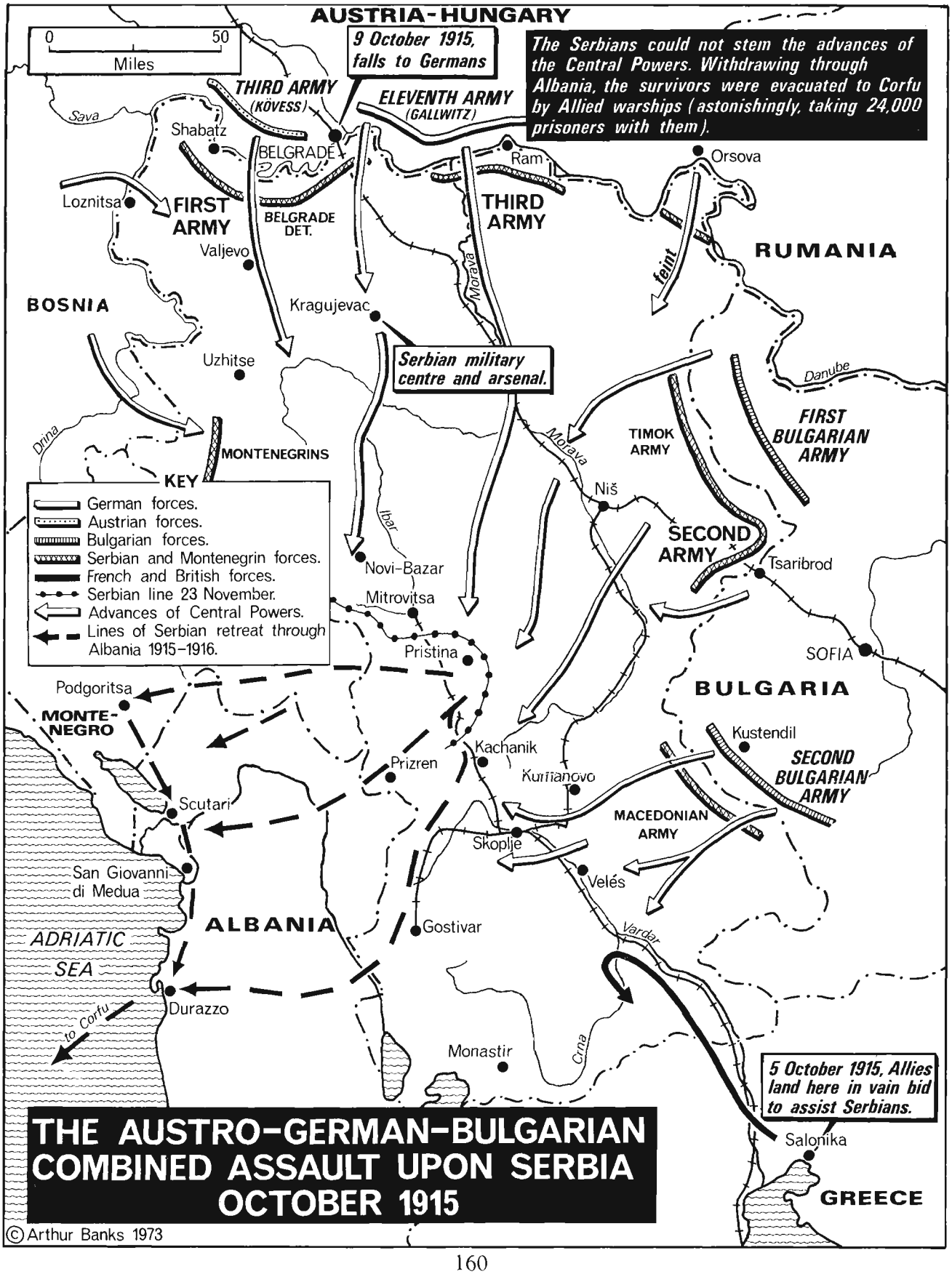
This second-class road was Verdun's life-line during the battle. In June, supply trucks were moving along it at a rate of one per fourteen seconds. It was serviced by the equivalent of a full division of troops.

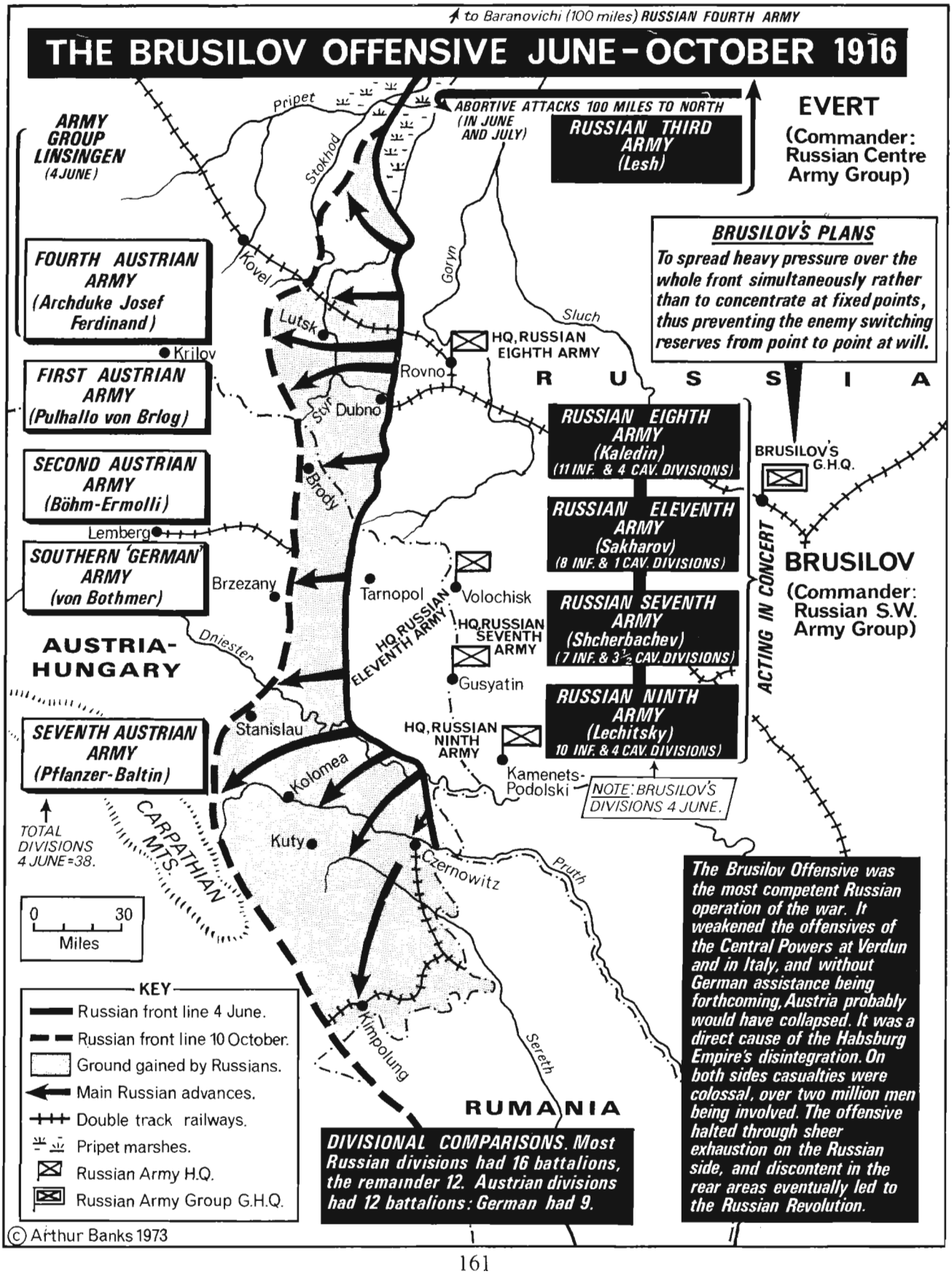
*The Germans did not bomb the route.*

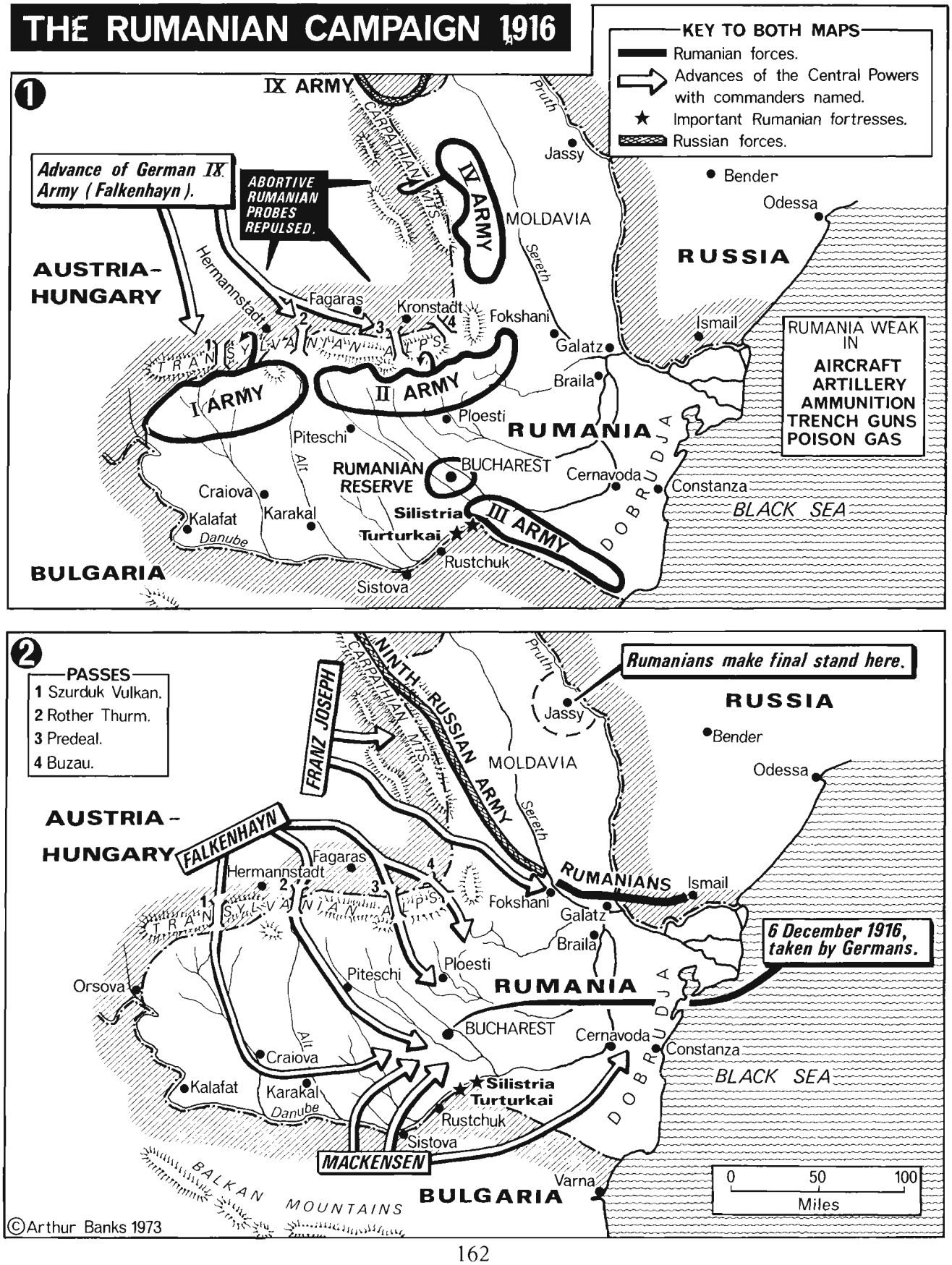
## German FLAMMENWERFER

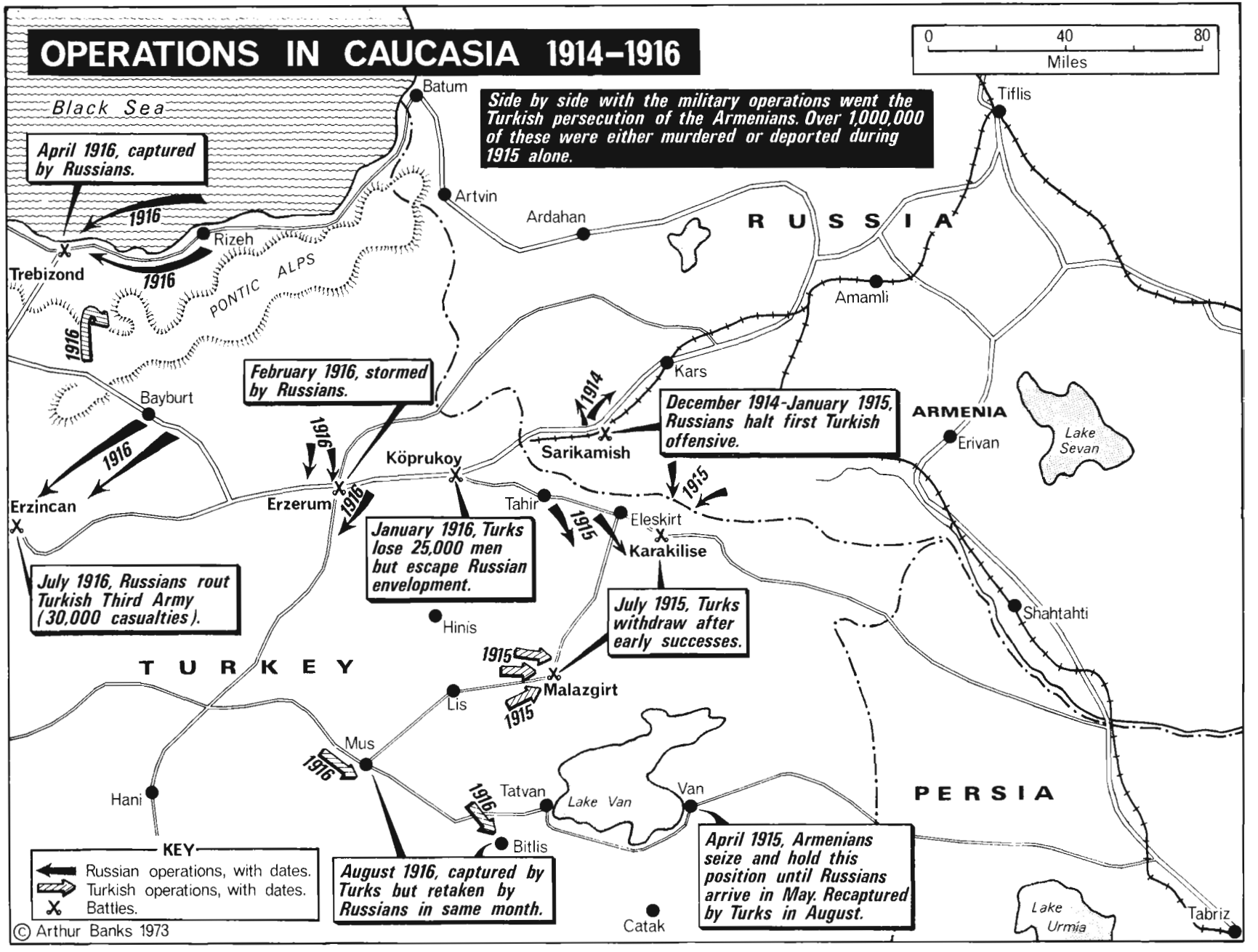
CAP (hinged at A) covering valves through which cylinder was pressurized.
A
FILLER CAP (for combustible liquid).
CARRYING FRAME
TAP
FLAME NOZZLE
(a selection of type variations was carried in pouch on operator's belt).
SHOULDER STRAPS (leather).
CYLINDER
RIGID-TYPE TUBE (some were flexible).

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AUSTRIA-HUNGARY
0
50
Miles
9 October 1915, falls to Germans
The Serbians could not stem the advances of the Central Powers. Withdrawing through Albania, the survivors were evacuated to Corfu by Allied warships (astonishingly, taking 24,000 prisoners with them).
THIRD ARMY (KÖVESS)
ELEVENTH ARMY (GALLWITZ)
Sava
Shabatz
BELGRADE
Ram
Orsova
Loznitsa
FIRST ARMY
BELGRADE DET.
THIRD ARMY
RUMANIA
Valjevo
Morava
feint
BOSNIA
Kragujevac
Serbian military centre and arsenal.
Uzhitse
Danube
FIRST BULGARIAN ARMY
TIMOK ARMY
Drina
MONTENEGRINS
Morava
Niš
Ibar
SECOND ARMY
Tsaribrod
Novi-Bazar
Mitrovitsa
Pristina
SOFIA
BULGARIA
Podgoritsa
MONTE-NEGRO
Kustendil
Kachanik
Prizren
Kumanovo
SECOND BULGARIAN ARMY
Scutari
MACEDONIAN ARMY
Skoplje
San Giovanni di Medua
Velés
ALBANIA
Gostivar
Vardar
ADRIATIC SEA
Durazzo
to Corfu
Monastir
Crna
5 October 1915, Allies land here in vain bid to assist Serbians.
Salonika
GREECE
KEY
German forces.
Austrian forces.
Bulgarian forces.
Serbian and Montenegrin forces.
French and British forces.
Serbian line 23 November.
Advances of Central Powers.
Lines of Serbian retreat through Albania 1915–1916.
THE AUSTRO-GERMAN-BULGARIAN COMBINED ASSAULT UPON SERBIA OCTOBER 1915
© Arthur Banks 1973


to Baranovichi (100 miles) RUSSIAN FOURTH ARMY
THE BRUSILOV OFFENSIVE JUNE - OCTOBER 1916
ARMY GROUP LINSINGEN (4 JUNE)
Pripet
Stokhod
ABORTIVE ATTACKS 100 MILES TO NORTH (IN JUNE AND JULY)
RUSSIAN THIRD ARMY (Lesh)
EVERT (Commander: Russian Centre Army Group)
BRUSILOV'S PLANS
To spread heavy pressure over the whole front simultaneously rather than to concentrate at fixed points, thus preventing the enemy switching reserves from point to point at will.
FOURTH AUSTRIAN ARMY (Archduke Josef Ferdinand)
Kovel
Lutsk
Goryn
Sluch
HQ, RUSSIAN EIGHTH ARMY
Krilov
Rovno
R U S S I A
FIRST AUSTRIAN ARMY (Pulhallo von Brlog)
Styr
Dubno
RUSSIAN EIGHTH ARMY (Kaledin) (11 INF. & 4 CAV. DIVISIONS)
BRUSILOV'S G.H.Q.
SECOND AUSTRIAN ARMY (Böhm-Ermolli)
Brody
RUSSIAN ELEVENTH ARMY (Sakharov) (8 INF. & 1 CAV. DIVISIONS)
Lemberg
SOUTHERN 'GERMAN' ARMY (von Bothmer)
Brzezany
Tarnopol
Volochisk
HQ, RUSSIAN ELEVENTH ARMY
HQ, RUSSIAN SEVENTH ARMY
RUSSIAN SEVENTH ARMY (Shcherbachev) (7 INF. & 3½ CAV. DIVISIONS)
ACTING IN CONCERT
BRUSILOV (Commander: Russian S.W. Army Group)
AUSTRIA-HUNGARY
Dniester
Gusyatin
RUSSIAN NINTH ARMY (Lechitsky) (10 INF. & 4 CAV. DIVISIONS)
Stanislau
HQ, RUSSIAN NINTH ARMY
SEVENTH AUSTRIAN ARMY (Pflanzer-Baltin)
Kolomea
Kamenets-Podolski
NOTE: BRUSILOV'S DIVISIONS 4 JUNE.
TOTAL DIVISIONS 4 JUNE = 38.
CARPATHIAN MTS.
Kuty
Czernowitz
Pruth
0 30 Miles
KEY
Russian front line 4 June.
Russian front line 10 October.
Ground gained by Russians.
Main Russian advances.
Double track railways.
Pripet marshes.
Russian Army H.Q.
Russian Army Group G.H.Q.
Kimpolung
Sereth
RUMANIA
DIVISIONAL COMPARISONS. Most Russian divisions had 16 battalions, the remainder 12. Austrian divisions had 12 battalions: German had 9.
The Brusilov Offensive was the most competent Russian operation of the war. It weakened the offensives of the Central Powers at Verdun and in Italy, and without German assistance being forthcoming, Austria probably would have collapsed. It was a direct cause of the Habsburg Empire's disintegration. On both sides casualties were colossal, over two million men being involved. The offensive halted through sheer exhaustion on the Russian side, and discontent in the rear areas eventually led to the Russian Revolution.
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THE RUMANIAN CAMPAIGN 1916
KEY TO BOTH MAPS
Rumanian forces.
Advances of the Central Powers with commanders named.
Important Rumanian fortresses.
Russian forces.
1
IX ARMY
CARPATHIAN MTS.
Pruth
Jassy
Bender
Odessa
Advance of German IX. Army (Falkenhayn).
ABORTIVE RUMANIAN PROBES REPULSED.
IV ARMY
MOLDAVIA
Sereth
RUSSIA
AUSTRIA-HUNGARY
Hermannstadt
Fagaras
Kronstadt
Fokshani
Ismail
Galatz
TRANSYLVANIAN ALPS
I ARMY
II ARMY
Braila
Ploesti
RUMANIA
RUMANIA WEAK IN
AIRCRAFT
ARTILLERY
AMMUNITION
TRENCH GUNS
POISON GAS
Piteschi
Alt
RUMANIAN RESERVE
BUCHAREST
Cernavoda
Constanza
DOBRUDJA
Craiova
Kalafat
Karakal
Silistria
Turturkai
III ARMY
BLACK SEA
Danube
Rustchuk
BULGARIA
Sistova
2
PASSES
1 Szurduk Vulkan.
2 Rother Thurm.
3 Predeal.
4 Buzau.
NINTH RUSSIAN ARMY
FRANZ JOSEPH
Rumanians make final stand here.
RUSSIA
Jassy
Bender
Odessa
MOLDAVIA
AUSTRIA-HUNGARY
FALKENHAYN
Hermannstadt
Fagaras
RUMANIANS
Ismail
Fokshani
Galatz
Braila
6 December 1916, taken by Germans.
Orsova
Piteschi
Ploesti
RUMANIA
BUCHAREST
Cernavoda
Constanza
Craiova
Kalafat
Karakal
Silistria
Turturkai
Danube
Rustchuk
Sistova
MACKENSEN
BLACK SEA
BALKAN MOUNTAINS
Varna
BULGARIA
0 50 100
Miles
©Arthur Banks 1973

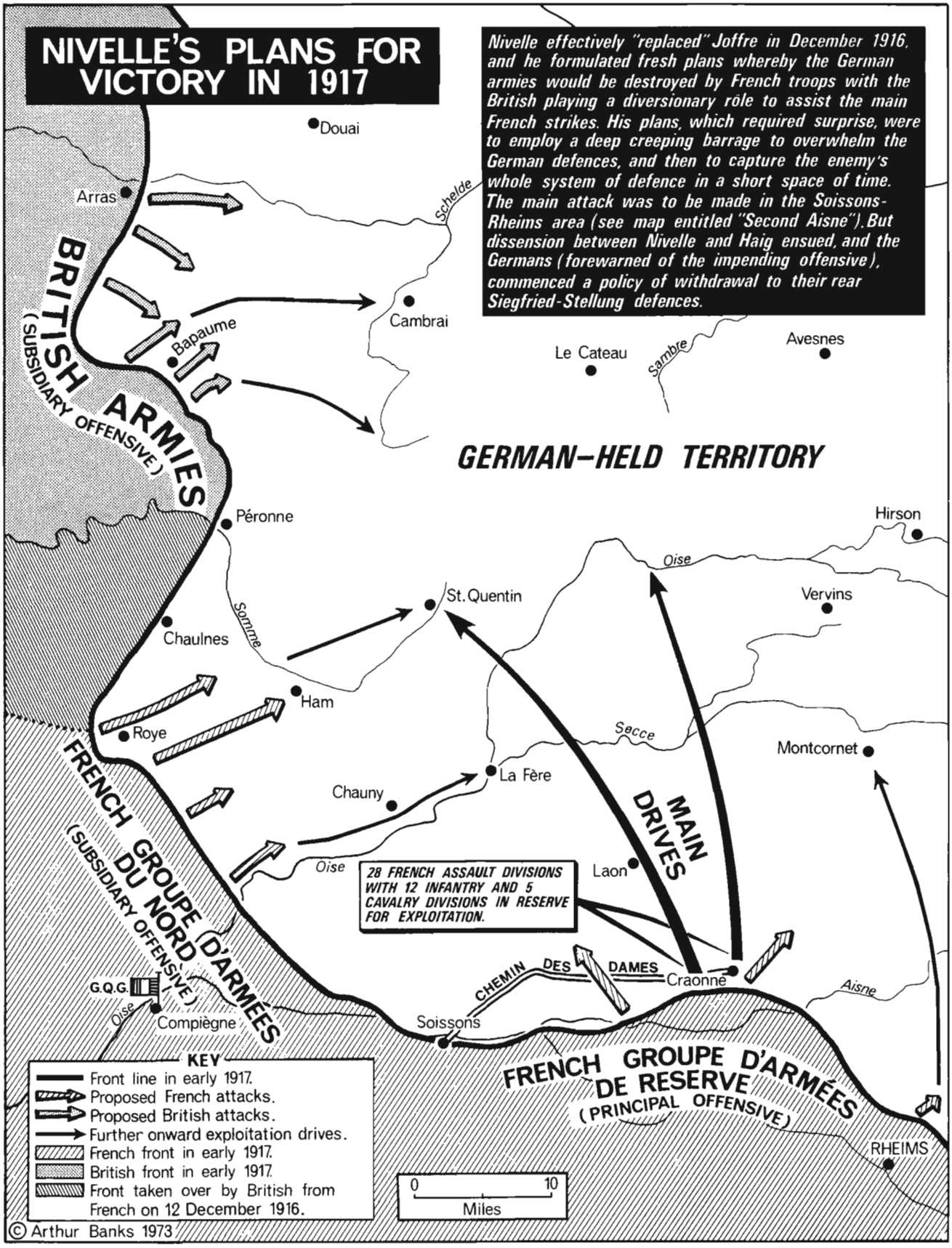

OPERATIONS IN CAUCASIA 1914–1916
0
40
80
Miles
Black Sea
Side by side with the military operations went the Turkish persecution of the Armenians. Over 1,000,000 of these were either murdered or deported during 1915 alone.
April 1916, captured by Russians.
1916
1916
1916
Batum
Artvin
Ardahan
Rizeh
Trebizond
PONTIC ALPS
RUSSIA
Tiflis
Amamli
Kars
1914
December 1914-January 1915, Russians halt first Turkish offensive.
Sarikamish
February 1916, stormed by Russians.
Bayburt
1916
1916
1916
Köprukoy
Erzincan
Erzurum
1916
January 1916, Turks lose 25,000 men but escape Russian envelopment.
Tahir
1915
1915
Eleskirt
Karakilise
July 1916, Russians rout Turkish Third Army (30,000 casualties).
Hinis
July 1915, Turks withdraw after early successes.
1915
1915
Malazgirt
TURKEY
Lis
Mus
1916
Hani
1916
Tatvan
Lake Van
Van
Bitlis
August 1916, captured by Turks but retaken by Russians in same month.
April 1915, Armenians seize and hold this position until Russians arrive in May. Recaptured by Turks in August.
Catak
ARMENIA
Erivan
Lake Sevan
Shahtahti
PERSIA
Lake Urmia
Tabriz
KEY
Russian operations, with dates.
Turkish operations, with dates.
Battles.
© Arthur Banks 1973

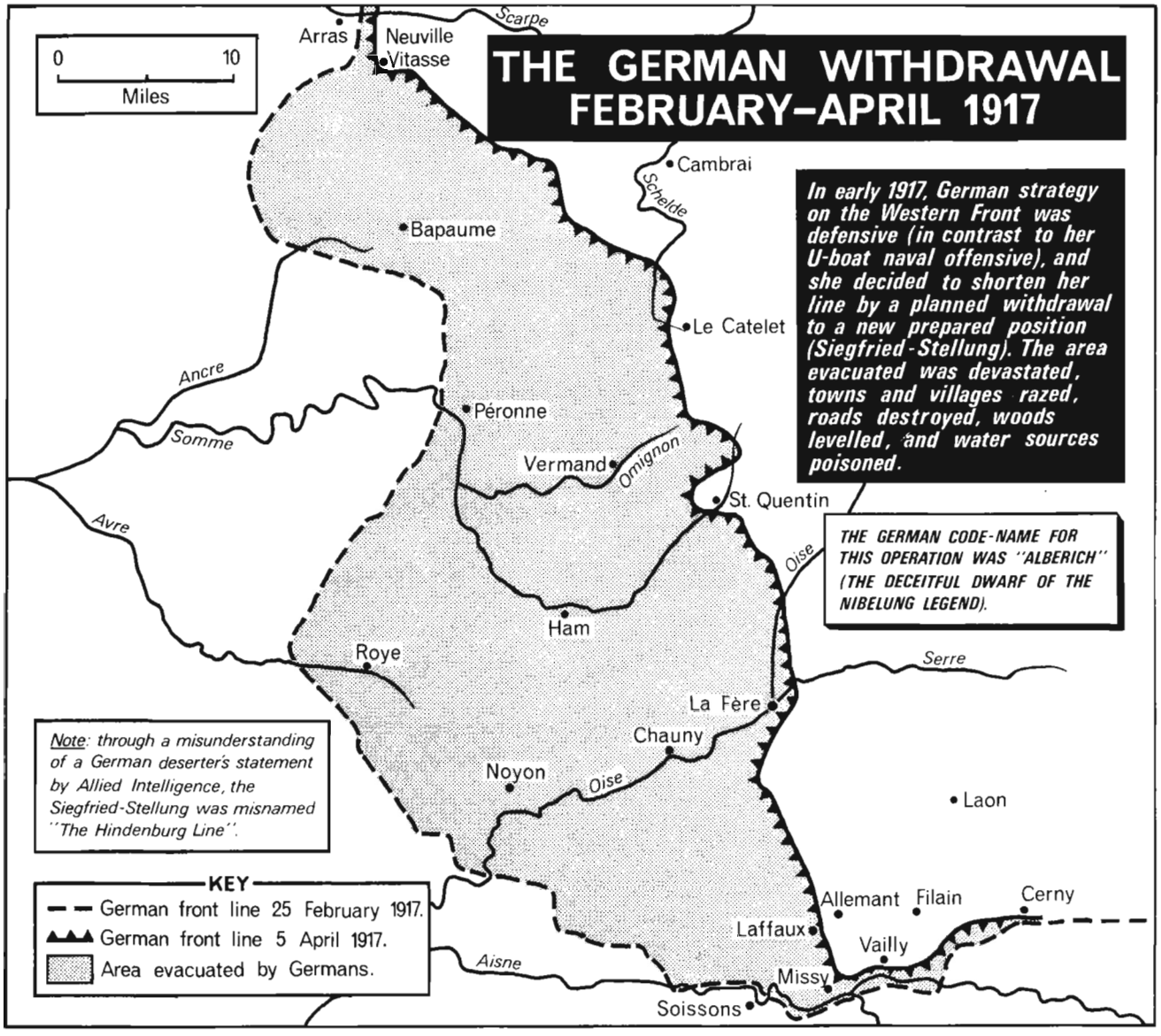
# THE WAR IN 1917

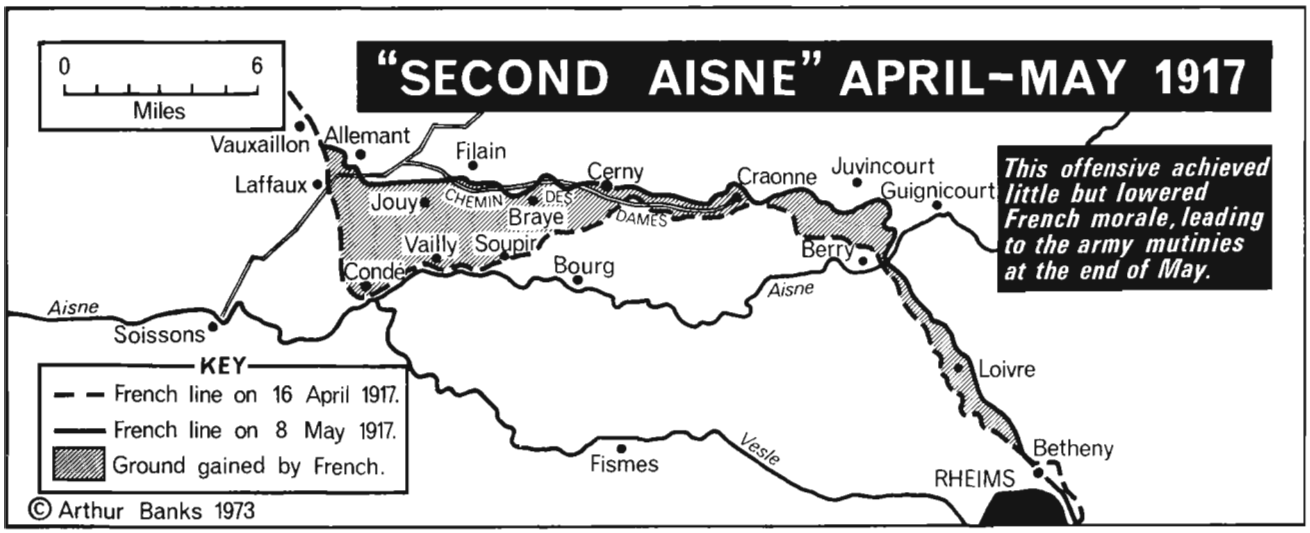
The wasteful slaughter of 1916 was followed by a year of astonishing political change and upheaval. When, on 1 February 1917, the Germans announced a resumption of unrestricted U-Boat warfare, they knew that they ran the risk of bringing America into the conflict, but they calculated that they could eliminate Russia and France on land and starve the British into surrender before the effects of American belligerency were felt in Europe. In the event, the United States was finally brought to declare war on Germany in April 1917 as much by evidence of German intrigues in Mexico (the Zimmermann telegram) as by the submarine (see page 214). The fall of the Tsarist autocracy and the establishment of a democratic Provisional Government in Russia (page 177) made it easier for Congress to accept the idea of war; but British and French hopes that the Provisional Government would purge corruption and make Russia again an efficient military partner proved ill-founded. The so-called Kerensky Offensive of July 1917 soon petered out (page 176); the Russian people were apathetic and anxious only for 'peace and bread'. When in the first week of November Lenin's Bolsheviks seized power in Petrograd, Russia virtually withdrew from the war, opened negotiations with Germany and her allies, and concluded a separate peace (the Treaty of Brest-Litovsk, March 1918) by which Russia surrendered Poland, the Ukraine, the Baltic provinces, Finland and much of the Caucasus (see page 178).

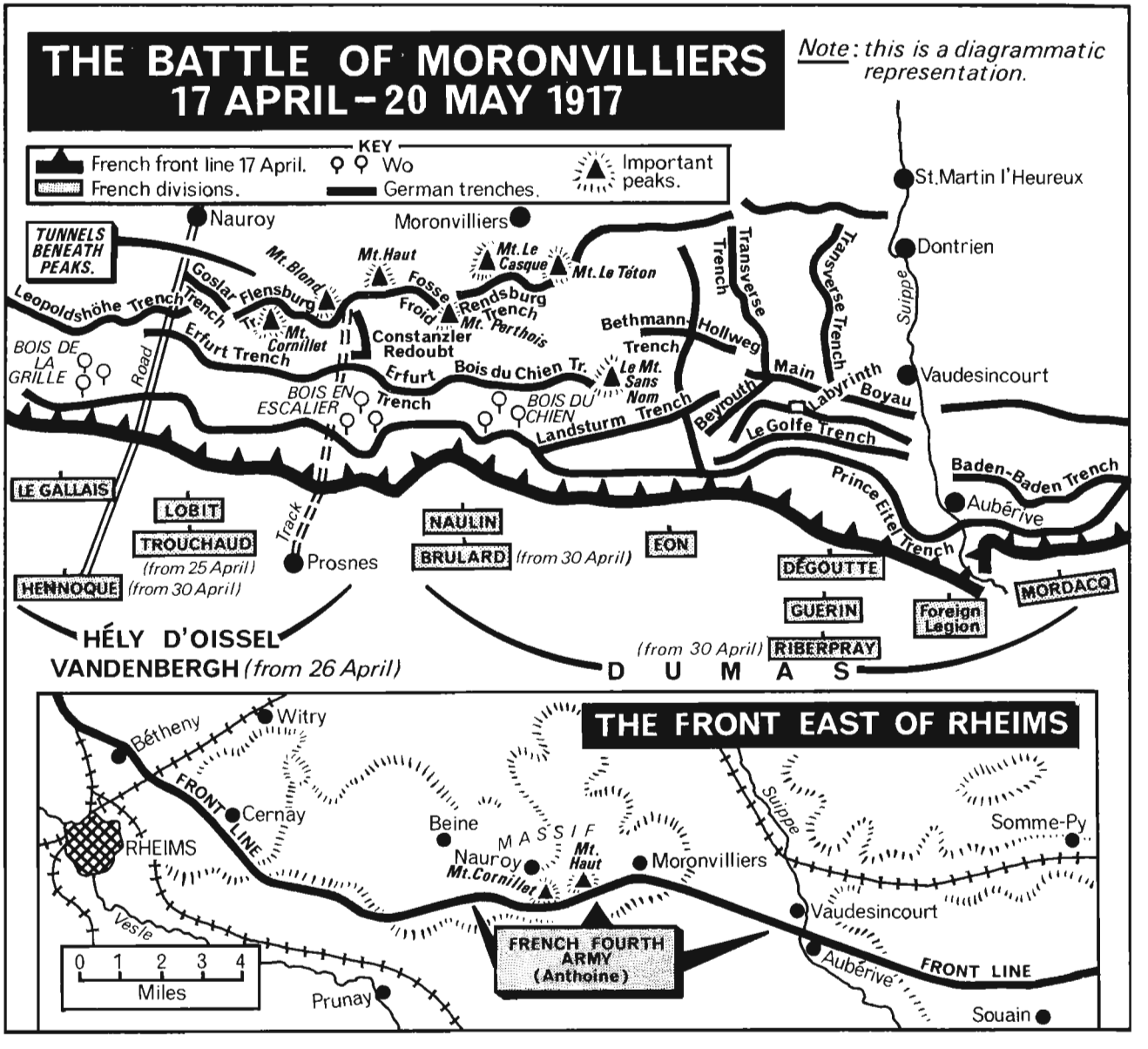
Bolshevik propaganda contributed to unrest elsewhere in the Allied camp, notably among the French and Russians in Macedonia (page 204) and among mutinous French units on the Western Front (page 168). Although there was disaffection among the Austro-Hungarian forces, their morale was strengthened by the combined Austro-German victory over the Italians at Caporetto (page 202), in which the rout was only halted by the arrival of British and French reinforcements. The principal successes of the Allies during 1917 were in Asia. The Tigris port of Kut (where the first British expedition of Mesopotamia had been forced to surrender to the Turks in the spring of 1916) was retaken in February and Baghdad captured a fortnight later. The most dramatic victory was won by Allenby in Palestine, enabling the British to enter Jerusalem at the beginning of December. (For Mesopotamia see pages 206–210 and for Palestine see pages 211–213.)

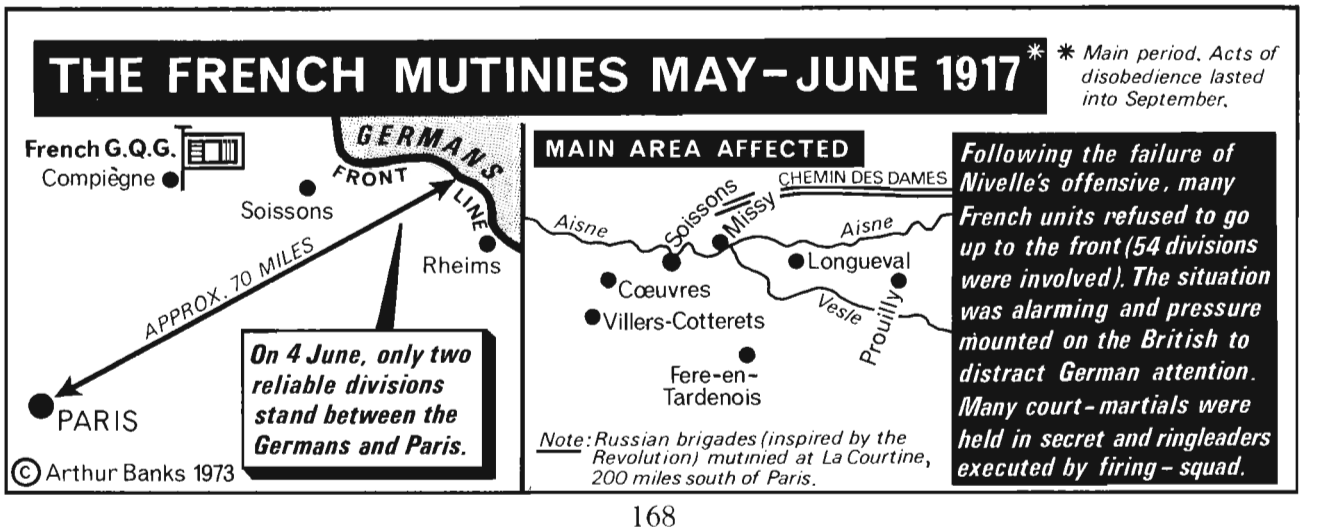
On the Western Front Nivelle had succeeded Joffre in the second week of December 1916. The new commander-in-chief planned an offensive towards Laon, and persisted in his project even when the Germans withdrew to stronger defensive positions. The offensive was a disaster; Nivelle was replaced by Pétain, who with great skill gradually restored the confidence of the French soldiery. But there was little the French Army could do for the remainder of the year. Haig hoped to defeat the Germans in Flanders, a policy which appealed to the British naval chiefs, since it would have eliminated the U-boat bases on the Belgian coast. Heavy bombardments and rain made the ground impassable, and the 'third battle of Ypres' came to a disastrous halt in the mud of Passchendaele. Earlier in the year the Canadians gained a striking success at Vimy Ridge, north-east of Arras, and the British Second Army (which included an Australian and New Zealand Corps) won a comprehensive local victory at Messines, south of Ypres. Potentially the most significant military development of the year was the breakthrough by massed British tanks at Cambrai in November, but Haig by now did not have sufficient reserves to consolidate the gains made by the tanks, and the Germans recovered much of the land they had lost in a counter-attack ten days later.

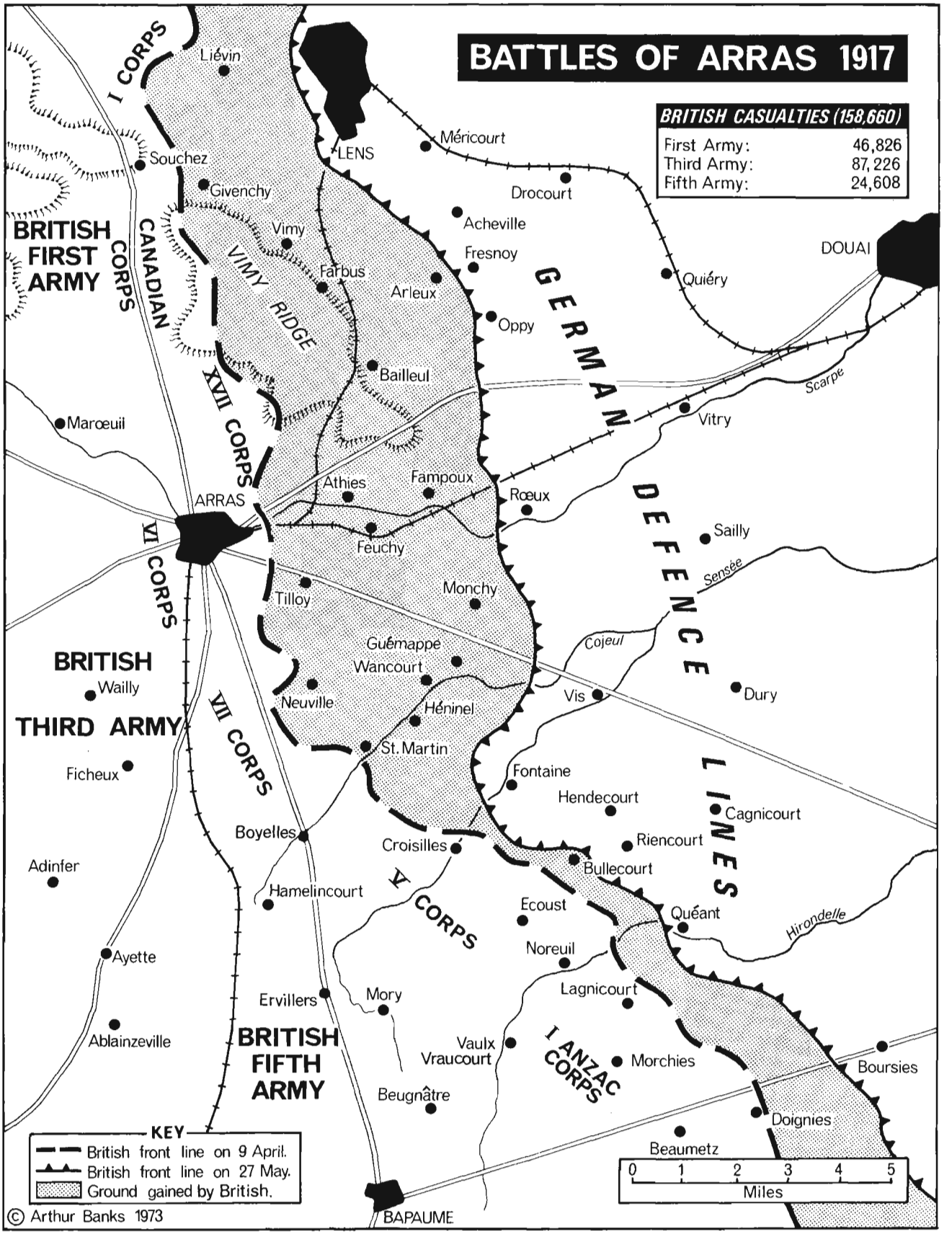

NIVELLE'S PLANS FOR VICTORY IN 1917
Nivelle effectively "replaced" Joffre in December 1916, and he formulated fresh plans whereby the German armies would be destroyed by French troops with the British playing a diversionary rôle to assist the main French strikes. His plans, which required surprise, were to employ a deep creeping barrage to overwhelm the German defences, and then to capture the enemy's whole system of defence in a short space of time. The main attack was to be made in the Soissons-Rheims area (see map entitled "Second Aisne"). But dissension between Nivelle and Haig ensued, and the Germans (forewarned of the impending offensive), commenced a policy of withdrawal to their rear Siegfried-Stellung defences.
Douai
Arras
Schelde
BRITISH ARMIES
(SUBSIDIARY OFFENSIVE)
Bapaume
Cambrai
Le Cateau
Sambre
Avesnes
GERMAN-HELD TERRITORY
Péronne
Hirson
Oise
Somme
St. Quentin
Vervins
Chaulnes
Ham
Roye
Secce
Montcornet
La Fère
Chauny
MAIN DRIVES
Oise
28 FRENCH ASSAULT DIVISIONS WITH 12 INFANTRY AND 5 CAVALRY DIVISIONS IN RESERVE FOR EXPLOITATION.
Laon
FRENCH GROUPE D'ARMÉES DU NORD
(SUBSIDIARY OFFENSIVE)
CHEMIN DES DAMES
Craonne
Aisne
G.Q.G.
Oise
Compiègne
Soissons
FRENCH GROUPE D'ARMÉES DE RESERVE
(PRINCIPAL OFFENSIVE)
RHEIMS
KEY
Front line in early 1917.
Proposed French attacks.
Proposed British attacks.
Further onward exploitation drives.
French front in early 1917.
British front in early 1917.
Front taken over by British from French on 12 December 1916.
0
10
Miles
© Arthur Banks 1973

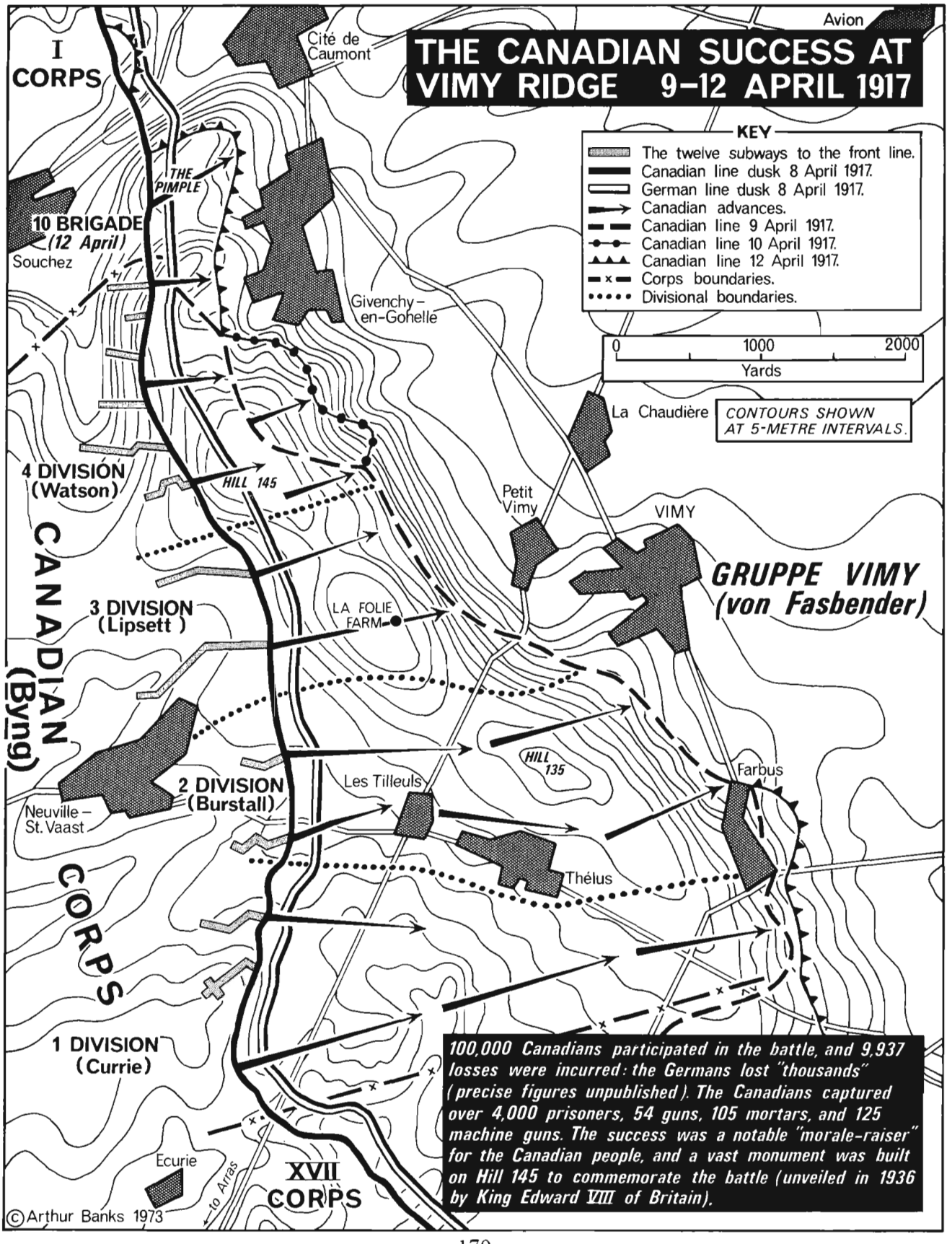

THE GERMAN WITHDRAWAL
FEBRUARY–APRIL 1917
0
10
Miles
Arras
Neuville
Vitasse
Scarpe
Cambrai
Schelde
Bapaume
Le Catelet
Ancre
Somme
Péronne
Vermand
Omignon
St. Quentin
Avre
Oise
Ham
Roye
Serre
La Fère
Chauny
Noyon
Oise
Laon
Allemant
Filain
Cerny
Laffaux
Vailly
Aisne
Missy
Soissons
In early 1917, German strategy on the Western Front was defensive (in contrast to her U-boat naval offensive), and she decided to shorten her line by a planned withdrawal to a new prepared position (Siegfried-Stellung). The area evacuated was devastated, towns and villages razed, roads destroyed, woods levelled, and water sources poisoned.
THE GERMAN CODE-NAME FOR THIS OPERATION WAS "ALBERICH" (THE DECEITFUL DWARF OF THE NIBELUNG LEGEND).
Note: through a misunderstanding of a German deserter's statement by Allied Intelligence, the Siegfried-Stellung was misnamed "The Hindenburg Line".
KEY
German front line 25 February 1917.
German front line 5 April 1917.
Area evacuated by Germans.

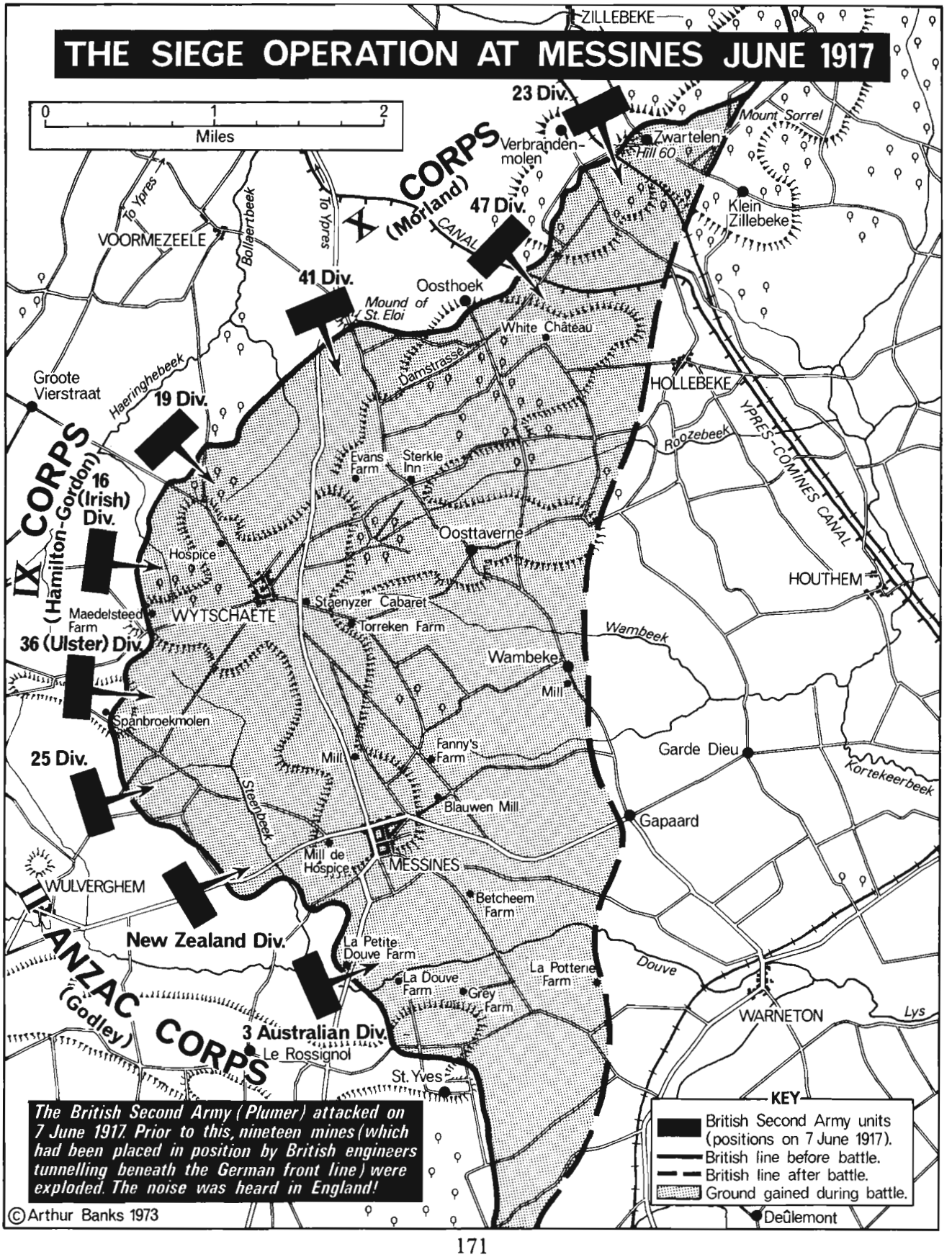

"SECOND AISNE" APRIL–MAY 1917
0
6
Miles
Vauxaillon
Allemant
Filain
Laffaux
Cerny
Craonne
Juvincourt
Guignicourt
Jouy
CHEMIN
DES
DAMES
Braye
Vailly
Soupir
Condé
Bourg
Berry
Aisne
Soissons
Loivre
Fismes
Vesle
Betheny
RHEIMS
This offensive achieved little but lowered French morale, leading to the army mutinies at the end of May.
KEY
French line on 16 April 1917.
French line on 8 May 1917.
Ground gained by French.
© Arthur Banks 1973

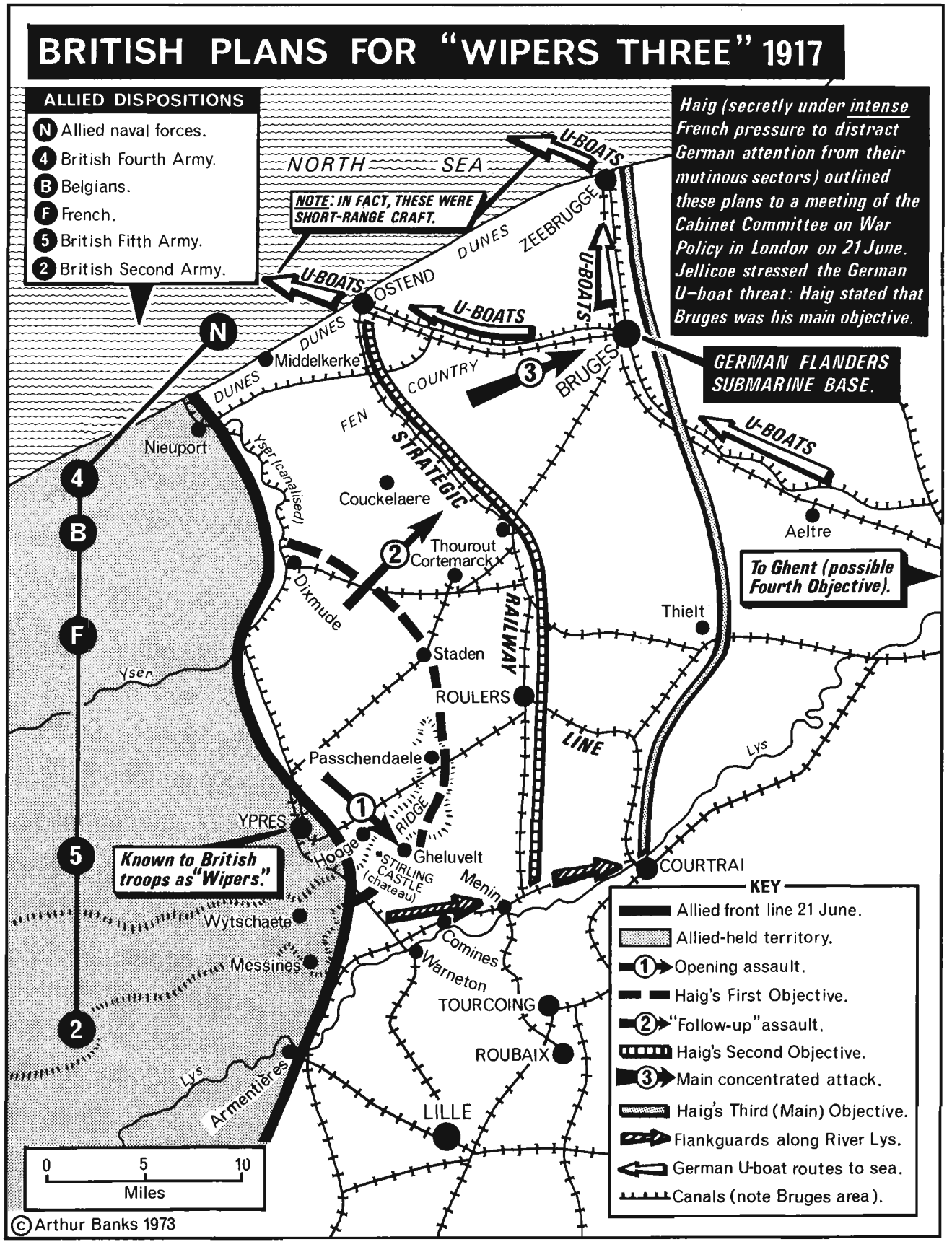

THE BATTLE OF MORONVILLIERS
17 APRIL – 20 MAY 1917
Note: this is a diagrammatic representation.
KEY
French front line 17 April.
French divisions.
Wo
German trenches.
Important peaks.
TUNNELS BENEATH PEAKS.
Nauroy
Moronvilliers
St.Martin l'Heureux
Dontrien
Suippe
Vaudesincourt
Mt. Blond
Mt. Haut
Mt. Le Casque
Mt. Le Téton
Fosse Froid
Rendsburg Trench
Mt. Perthois
Goslar Trench
Flensburg Tr.
Mt. Cornillet
Leopoldshöhe Trench
Erfurt Trench
Constanzler Redoubt
Bethmann Hollweg Trench
Transverse Trench
Transverse Trench
Main
Labyrinth
Boyau
Beyrouth
Le Golfe Trench
Erfurt
Bois du Chien Tr.
Le Mt. Sans Nom
Landsturm Trench
BOIS DE LA GRILLE
Road
BOIS EN ESCALIER
Trench
BOIS DU CHIEN
LE GALLAIS
LOBIT
TROUCHAUD
(from 25 April)
HENNOQUE
(from 30 April)
Track
Prosnes
NAULIN
BRULARD
(from 30 April)
EON
DÉGOUTTE
GUERIN
RIBERPRAY
(from 30 April)
Baden-Baden Trench
Prince Eitel Trench
Aubérive
MORDACQ
Foreign Legion
HÉLY D'OISSEL
VANDENBERGH (from 26 April)
D U M A S
THE FRONT EAST OF RHEIMS
Bétheny
Witry
FRONT LINE
Cernay
RHEIMS
Beine
MASSIF
Nauroy
Mt. Cornillet
Mt. Haut
Moronvilliers
Suippe
Somme-Py
Vaudesincourt
Aubérive
FRONT LINE
Souain
Vesle
Prunay
0 1 2 3 4
Miles
FRENCH FOURTH ARMY (Anthoine)


THE FRENCH MUTINIES MAY – JUNE 1917*
* Main period. Acts of disobedience lasted into September.
French G.Q.G.
Compiègne
Soissons
GERMANS
FRONT LINE
Rheims
APPROX. 70 MILES
PARIS
On 4 June, only two reliable divisions stand between the Germans and Paris.
© Arthur Banks 1973
MAIN AREA AFFECTED
CHEMIN DES DAMES
Aisne
Soissons
Missy
Aisne
Longueval
Cœuvres
Villers-Cotterets
Vesle
Prouilly
Fere-en-Tardenois
Note: Russian brigades (inspired by the Revolution) mutinied at La Courtine, 200 miles south of Paris.
Following the failure of Nivelle's offensive, many French units refused to go up to the front (54 divisions were involved). The situation was alarming and pressure mounted on the British to distract German attention. Many court-martials were held in secret and ringleaders executed by firing-squad.

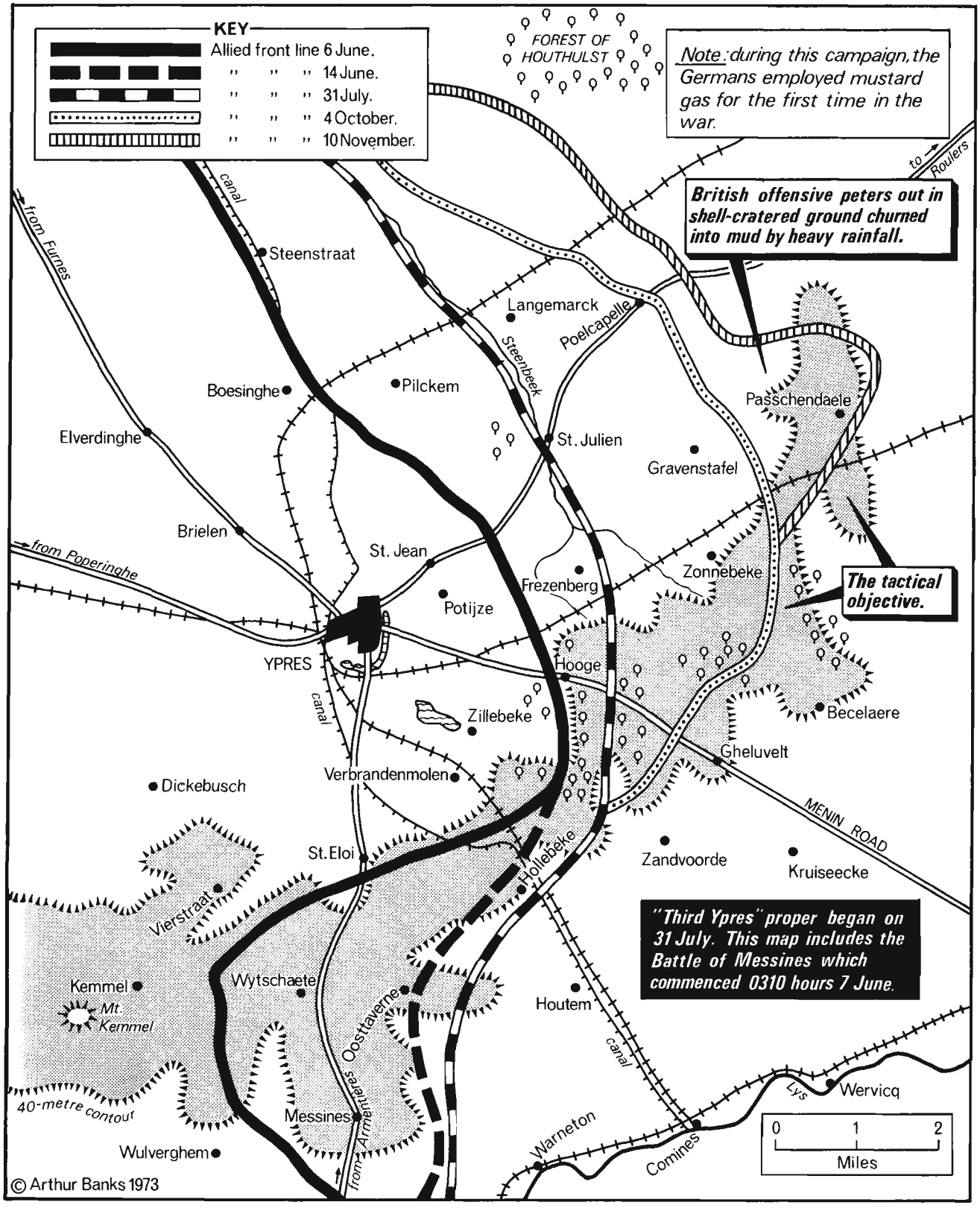

BATTLES OF ARRAS 1917
BRITISH CASUALTIES (158,660)
First Army: 46,826
Third Army: 87,226
Fifth Army: 24,608
BRITISH FIRST ARMY
BRITISH THIRD ARMY
BRITISH FIFTH ARMY
I CORPS
CANADIAN CORPS
XVII CORPS
VI CORPS
VII CORPS
V CORPS
I ANZAC CORPS
VIMY RIDGE
GERMAN DEFENCE LINES
Liévin
Souchez
Givenchy
Vimy
Farbus
Arleux
LENS
Méricourt
Drocourt
Acheville
Fresnoy
Oppy
Quiéry
DOUAI
Scarpe
Vitry
Bailleul
Marœuil
Athies
Fampoux
ARRAS
Rœux
Sailly
Feuchy
Sensée
Tilloy
Monchy
Guémappe
Wancourt
Cojeul
Wailly
Neuville
Héninel
Vis
Dury
St. Martin
Ficheux
Fontaine
Hendecourt
Cagnicourt
Boyelles
Croisilles
Riencourt
Adinfer
Bullecourt
Hamelincourt
Ecoust
Quéant
Hirondelle
Ayette
Noreuil
Lagnicourt
Ervillers
Mory
Ablainzeville
Vaulx Vraucourt
Morchies
Boursies
Beugnâtre
Doignies
Beaumetz
BAPAUME
KEY
British front line on 9 April.
British front line on 27 May.
Ground gained by British.
0 1 2 3 4 5
Miles
© Arthur Banks 1973


THE CANADIAN SUCCESS AT VIMY RIDGE 9–12 APRIL 1917
KEY
The twelve subways to the front line.
Canadian line dusk 8 April 1917.
German line dusk 8 April 1917.
Canadian advances.
Canadian line 9 April 1917.
Canadian line 10 April 1917.
Canadian line 12 April 1917.
Corps boundaries.
Divisional boundaries.
0 1000 2000
Yards
CONTOURS SHOWN AT 5-METRE INTERVALS.
I CORPS
Cité de Caumont
Avion
THE PIMPLE
10 BRIGADE (12 April)
Souchez
Givenchy-en-Gohelle
La Chaudière
4 DIVISION (Watson)
HILL 145
Petit Vimy
VIMY
GRUPPE VIMY (von Fasbender)
CANADIAN (Byng) CORPS
3 DIVISION (Lipsett)
LA FOLIE FARM
HILL 135
Farbus
2 DIVISION (Burstall)
Les Tilleuls
Neuville-St. Vaast
Thélus
1 DIVISION (Currie)
Ecurie
to Arras
XVII CORPS
©Arthur Banks 1973
100,000 Canadians participated in the battle, and 9,937 losses were incurred: the Germans lost "thousands" (precise figures unpublished). The Canadians captured over 4,000 prisoners, 54 guns, 105 mortars, and 125 machine guns. The success was a notable "morale-raiser" for the Canadian people, and a vast monument was built on Hill 145 to commemorate the battle (unveiled in 1936 by King Edward VIII of Britain).

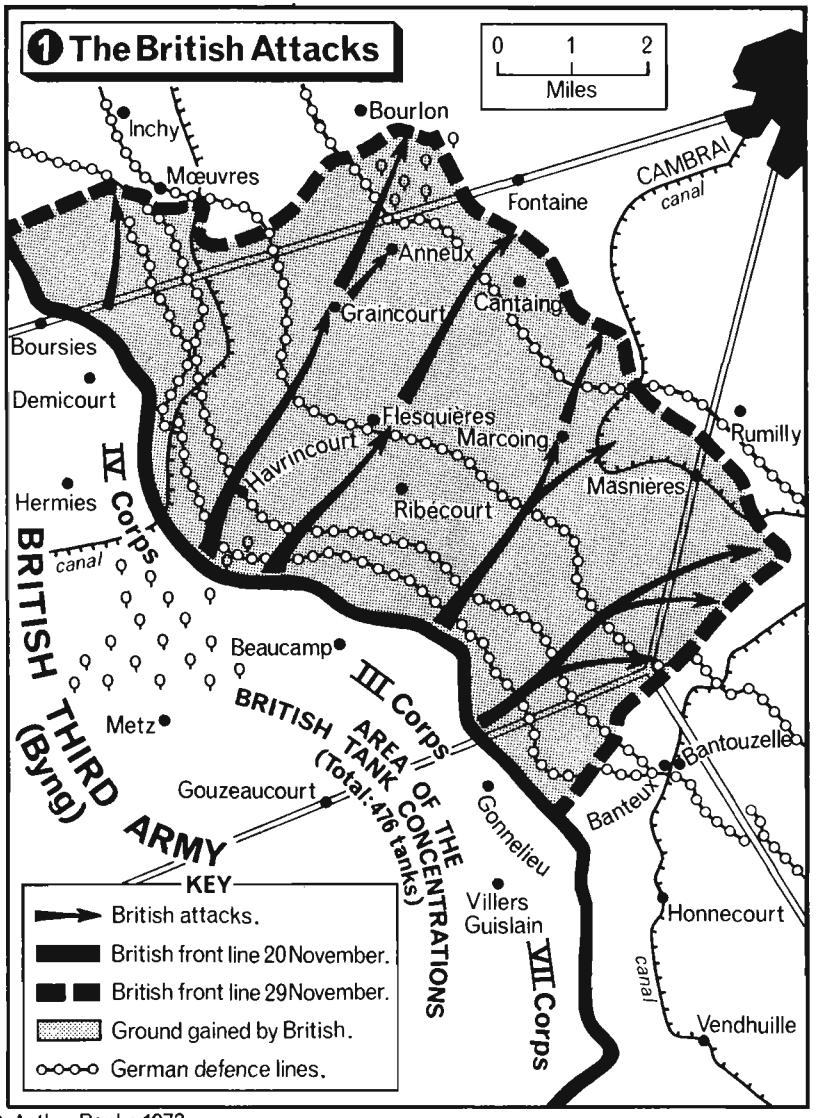

THE SIEGE OPERATION AT MESSINES JUNE 1917
0
1
2
Miles
ZILLEBEKE
23 Div.
Mount Sorrel
Verbranden-molen
Zwartelen
Hill 60
X CORPS (Morland)
47 Div.
CANAL
Klein Zillebeke
To Ypres
VOORMEZEELE
Bollaertbeek
41 Div.
Oosthoek
Mound of St. Eloi
White Château
Damstrasse
Groote Vierstraat
Haeringhebeek
19 Div.
HOLLEBEKE
Roozebeek
YPRES-COMINES CANAL
IX CORPS (Hamilton-Gordon)
16 (Irish) Div.
Evans Farm
Sterkle Inn
Oosttaverne
Hospice
HOUTHEM
Maedelsteed Farm
WYTSCHAETE
Staenyzer Cabaret
Torreken Farm
36 (Ulster) Div.
Wambeek
Wambeke
Mill
Spanbroekmolen
25 Div.
Fanny's Farm
Garde Dieu
Kortekeerbeek
Steenbeek
Blauwen Mill
Gapaard
Mill de Hospice
MESSINES
WULVERGHEM
Betcheem Farm
New Zealand Div.
La Petite Douve Farm
La Douve Farm
La Potterie Farm
Douve
Grey Farm
II ANZAC (Godley) CORPS
3 Australian Div.
Le Rossignol
WARNETON
Lys
St. Yves
KEY
British Second Army units (positions on 7 June 1917).
British line before battle.
British line after battle.
Ground gained during battle.
Deûlemont
The British Second Army (Plumer) attacked on 7 June 1917. Prior to this, nineteen mines (which had been placed in position by British engineers tunnelling beneath the German front line) were exploded. The noise was heard in England!
© Arthur Banks 1973

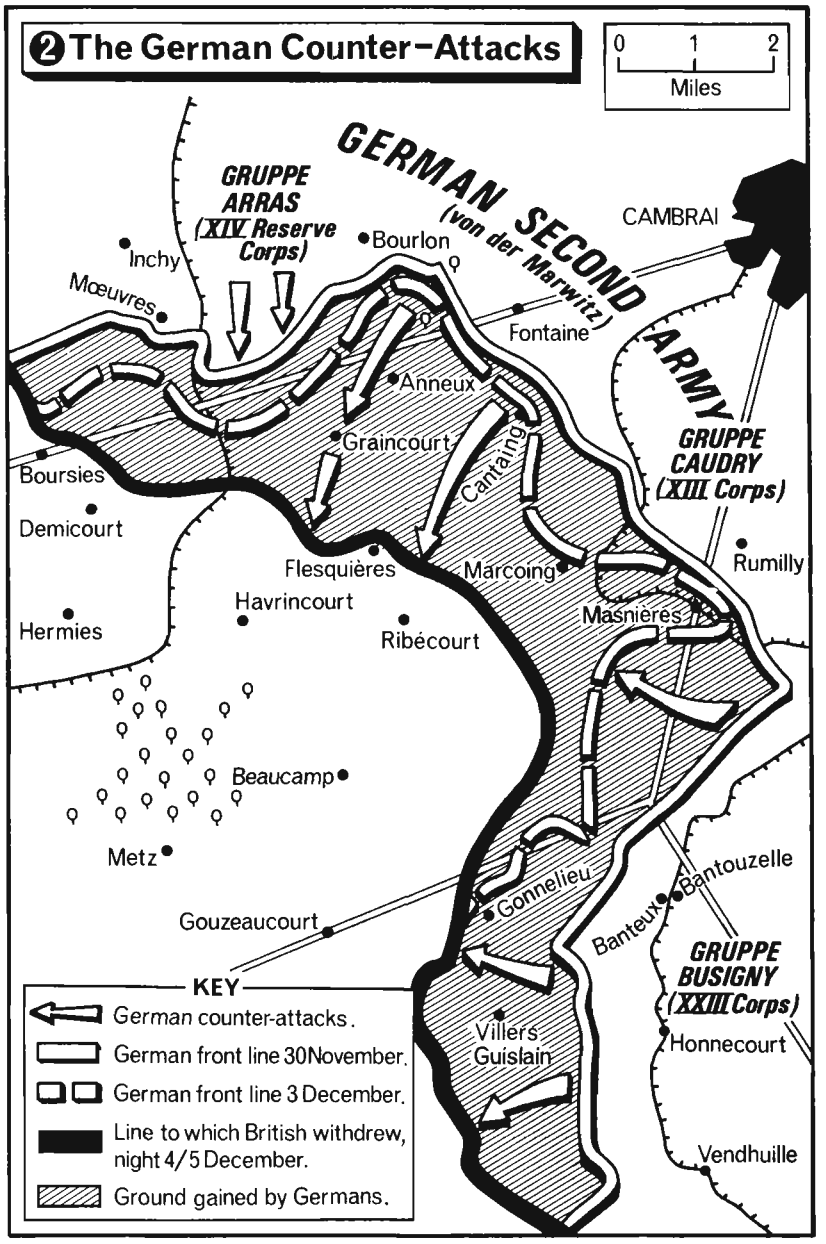

BRITISH PLANS FOR "WIPERS THREE" 1917
ALLIED DISPOSITIONS
N Allied naval forces.
4 British Fourth Army.
B Belgians.
F French.
5 British Fifth Army.
2 British Second Army.
Haig (secretly under intense French pressure to distract German attention from their mutinous sectors) outlined these plans to a meeting of the Cabinet Committee on War Policy in London on 21 June. Jellicoe stressed the German U-boat threat: Haig stated that Bruges was his main objective.
NORTH SEA
NOTE: IN FACT, THESE WERE SHORT-RANGE CRAFT.
U-BOATS
ZEEBRUGGE
OSTEND
DUNES
Middelkerke
COUNTRY
BRUGES
GERMAN FLANDERS SUBMARINE BASE.
Nieuport
FEN
STRATEGIC
Yser (canalised)
Couckelaere
Aeltre
Thourout
Cortemarck
To Ghent (possible Fourth Objective).
Dixmude
RAILWAY
Thielt
Staden
ROULERS
Yser
LINE
Lys
Passchendaele
YPRES
RIDGE
Hooge
Gheluvelt
STIRLING CASTLE (chateau)
Known to British troops as "Wipers."
COURTRAI
Menin
Wytschaete
Messines
Comines
Warneton
TOURCOING
ROUBAIX
Armentières
LILLE
0 5 10
Miles
KEY
Allied front line 21 June.
Allied-held territory.
Opening assault.
Haig's First Objective.
"Follow-up" assault.
Haig's Second Objective.
Main concentrated attack.
Haig's Third (Main) Objective.
Flankguards along River Lys.
German U-boat routes to sea.
Canals (note Bruges area).
© Arthur Banks 1973

# "THIRD YPRES"(PASSCHENDAELE): JULY - NOVEMBER 1917

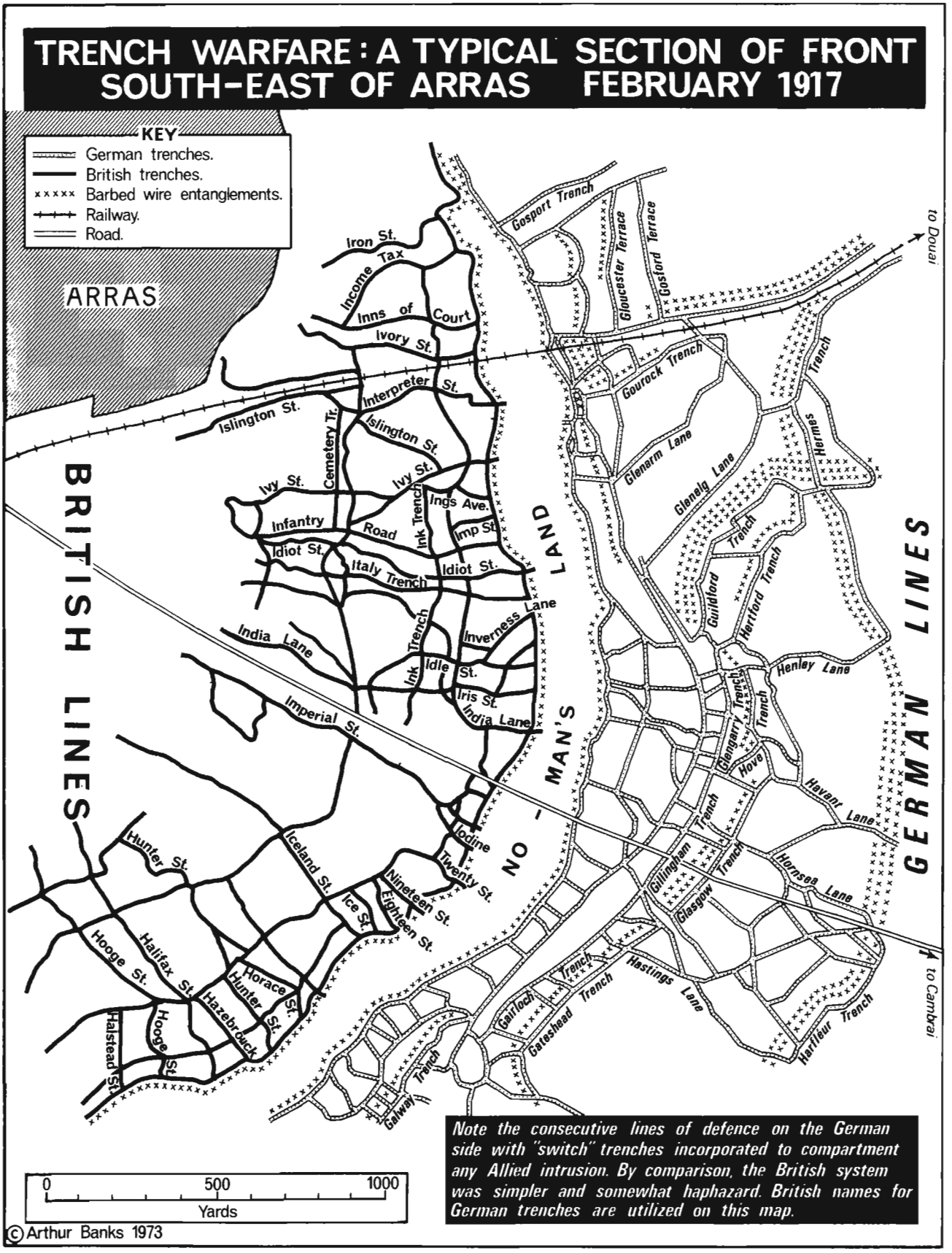


# THE BRITISH TANK-SPEARHEADED OFFENSIVE AT CAMBRAI 1917




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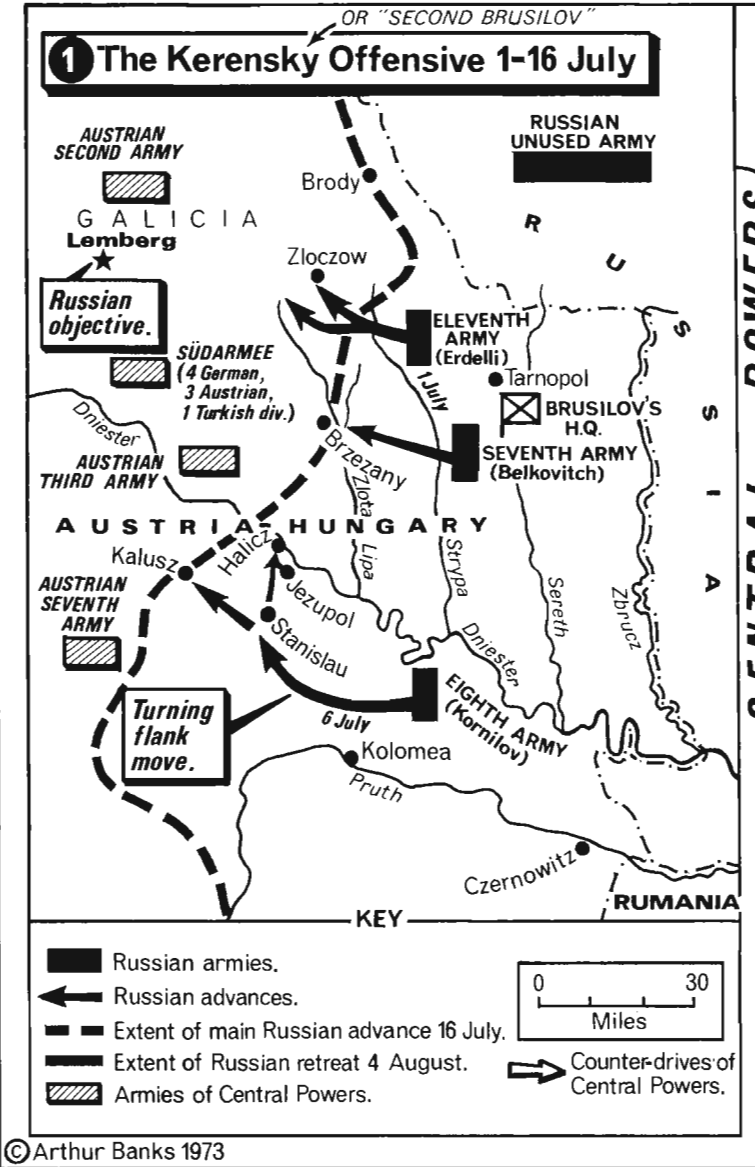


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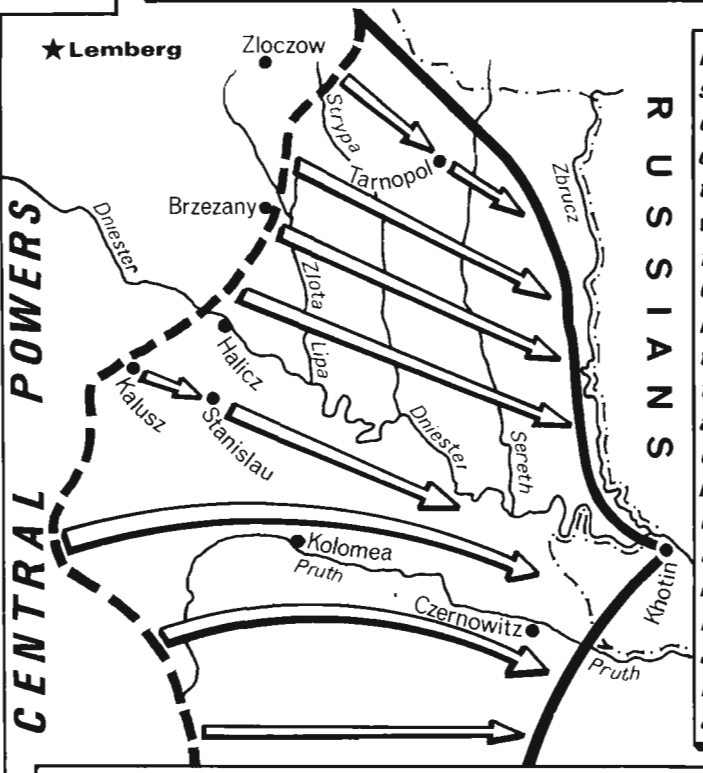
# RUSSIA'S FINAL EFFORT IN 1917

## 1 The Kerensky Offensive 1-16 July

OR "SECOND BRUSILOV"

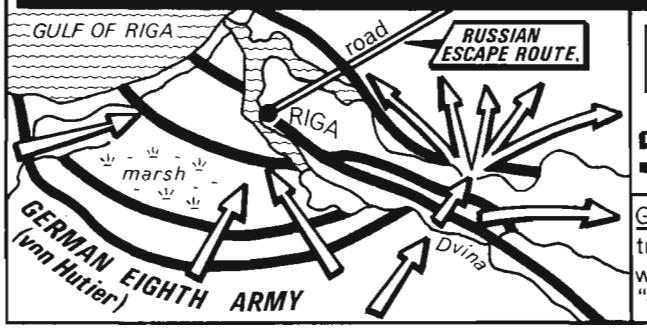



## 2 Central Powers' Backlash 19 July - 4 August




*Despite some early success the Russian offensive petered-out by 16 July. The troops were war-weary and supplies failed to arrive. The Germans brought reinforcements (via their railways) from the west and began a counter-offensive on 19 July. The Russians collapsed under the onslaught and fled back to the River Zbrucz. Only insufficient reserves and logistical factors halted the German advance.*

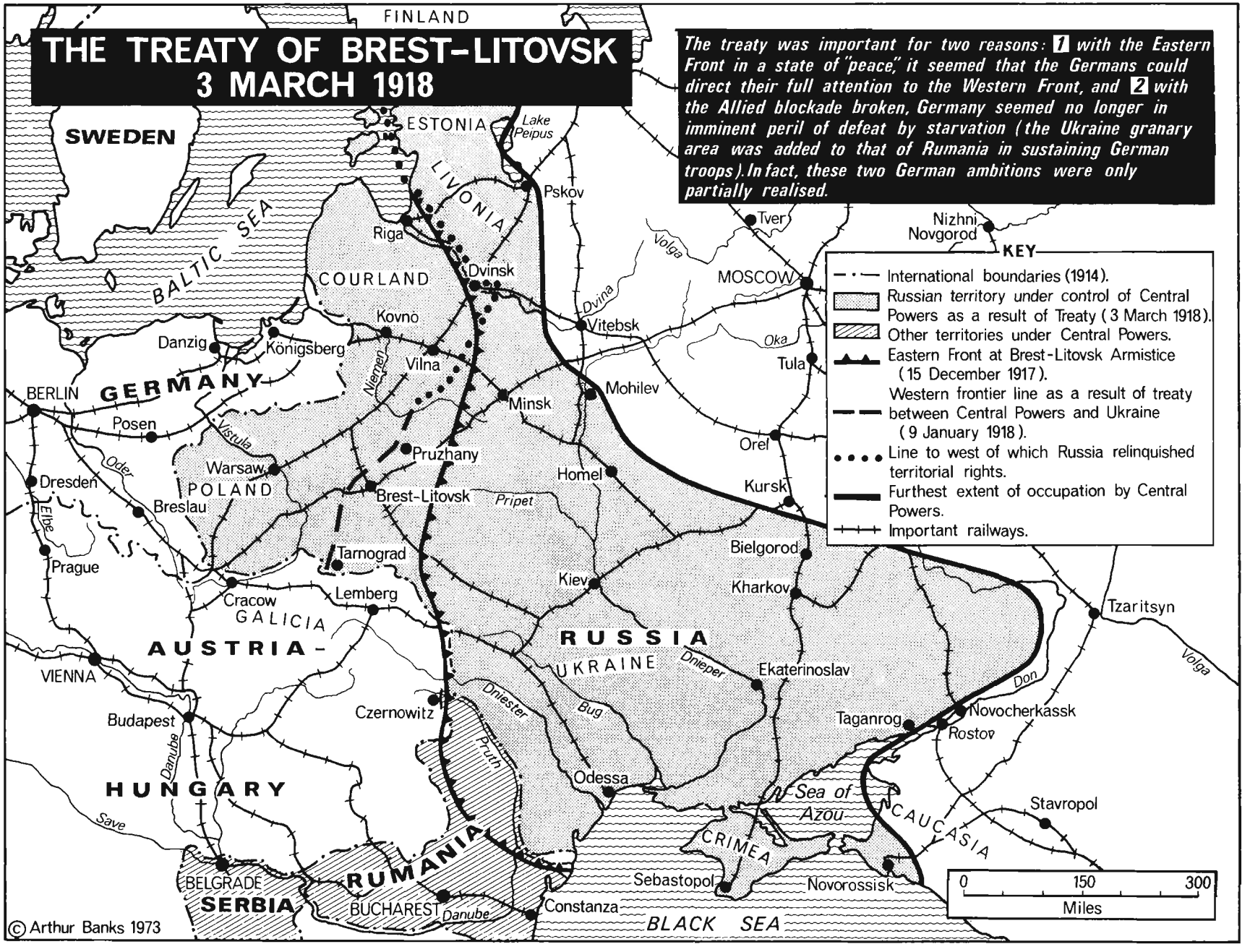
## GERMAN RIGA OFFENSIVE 1-5 SEPTEMBER 1917




German tactics: assault troops by-pass strongpoint which is reduced by the "follow-up" units.

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TURBULENT RUSSIA 1917–1918
ARCTIC OCEAN
Russia's defection from the war in 1917 allowed Germany to switch her main effort to the Western Front before American troops arrived in numbers sufficient to readjust the balance in favour of the Western Allies (Ludendorff's "now or never" offensive commenced in March 1918). However, the continuing uncertain situation on the Eastern Front compelled Germany to keep many divisions on alert facing Russia: thus she never ever managed to throw her full weight against the Western Allies.
Sole practical supply route from Western Allies
Murmansk
FINLAND
German intervention enables government to establish its independence.
Prisoners-of-war, criminals, and Chinese toil to construct double broad-gauge railway.
Archangel
NORWAY
SWEDEN
GERMAN BLOCKADE
FINLAND
Port inaccessible to Western Allies (ice-bound for eight months in year).
Name changes to Leningrad.
Note: after Lenin's death (1924)
Trotsky returns from America: Stalin returns from Siberia.
LENIN returns from Switzerland via Germany
PETROGRAD
Tsar abdicates, March 1917.
Ekaterinburg
Pskov
Riga
BALTIC SEA
Tsar and family murdered on approach of counter-revolutionary 'White' Army, July 1918.
German advance on Petrograd brings Trotsky to heel.
MOSCOW
Becomes new capital of Russia.
GERMANY
POLAND
Brest-Litovsk
THE EASTERN FRONT
Russian armies short of ammunition and food: low morale: mutinies: mass desertions: mass executions.
RUSSIA
Working-class discontent: factory workers and peasants in revolt: students and socialists intent on overthrowing government: food riots in large towns.
Bolsheviks sign Armistice and Treaty with the Central Powers.
UKRAINE
Russia's granary area, exploited by Germany, declares its independence.
DON COSSACKS
They refuse to acknowledge the Revolution.
AUSTRIA-HUNGARY
RUMANIA
SERBIA
BULGARIA
GREECE
BLACK SEA
CASPIAN SEA
DATES
Russia used the Julian Calendar which was thirteen days behind the International Calendar. Therefore, the 'February' Revolution occurred in March 1917, and the 'October' Revolution in November 1917.
CAUCASUS
Independent republics proclaimed.
TURKISH BLOCKADE
Baku
Turkey reoccupies her frontier and races Germany for the oil of Baku.
TURKEY
PERSIA
AEGEAN SEA
0
300
Miles
© Arthur Banks 1973


THE TREATY OF BREST-LITOVSK
3 MARCH 1918
The treaty was important for two reasons: 1 with the Eastern Front in a state of "peace," it seemed that the Germans could direct their full attention to the Western Front, and 2 with the Allied blockade broken, Germany seemed no longer in imminent peril of defeat by starvation (the Ukraine granary area was added to that of Rumania in sustaining German troops). In fact, these two German ambitions were only partially realised.
KEY
International boundaries (1914).
Russian territory under control of Central Powers as a result of Treaty (3 March 1918).
Other territories under Central Powers.
Eastern Front at Brest-Litovsk Armistice (15 December 1917).
Western frontier line as a result of treaty between Central Powers and Ukraine (9 January 1918).
Line to west of which Russia relinquished territorial rights.
Furthest extent of occupation by Central Powers.
Important railways.
FINLAND
SWEDEN
ESTONIA
Lake Peipus
LIVONIA
Pskov
Riga
BALTIC SEA
COURLAND
Dvinsk
Tver
Nizhni Novgorod
Volga
MOSCOW
Dvina
Vitebsk
Oka
Tula
Kovno
Danzig
Königsberg
Niemen
Vilna
BERLIN
GERMANY
Mohilev
Minsk
Posen
Vistula
Oder
Orel
Pruzhany
Warsaw
Dresden
POLAND
Homel
Kursk
Brest-Litovsk
Pripet
Elbe
Breslau
Bielgorod
Tarnograd
Prague
Kiev
Kharkov
Cracow
Lemberg
GALICIA
Tzaritsyn
RUSSIA
AUSTRIA-
UKRAINE
Dnieper
Volga
VIENNA
Ekaterinoslav
Don
Dniester
Bug
Czernowitz
Taganrog
Novocherkassk
Budapest
Rostov
Danube
Pruth
HUNGARY
Odessa
Sea of Azou
Stavropol
Save
CRIMEA
CAUCASIA
RUMANIA
BELGRADE
SERBIA
BUCHAREST
Danube
Sebastopol
Novorossisk
Constanza
BLACK SEA
0 150 300
Miles
© Arthur Banks 1973

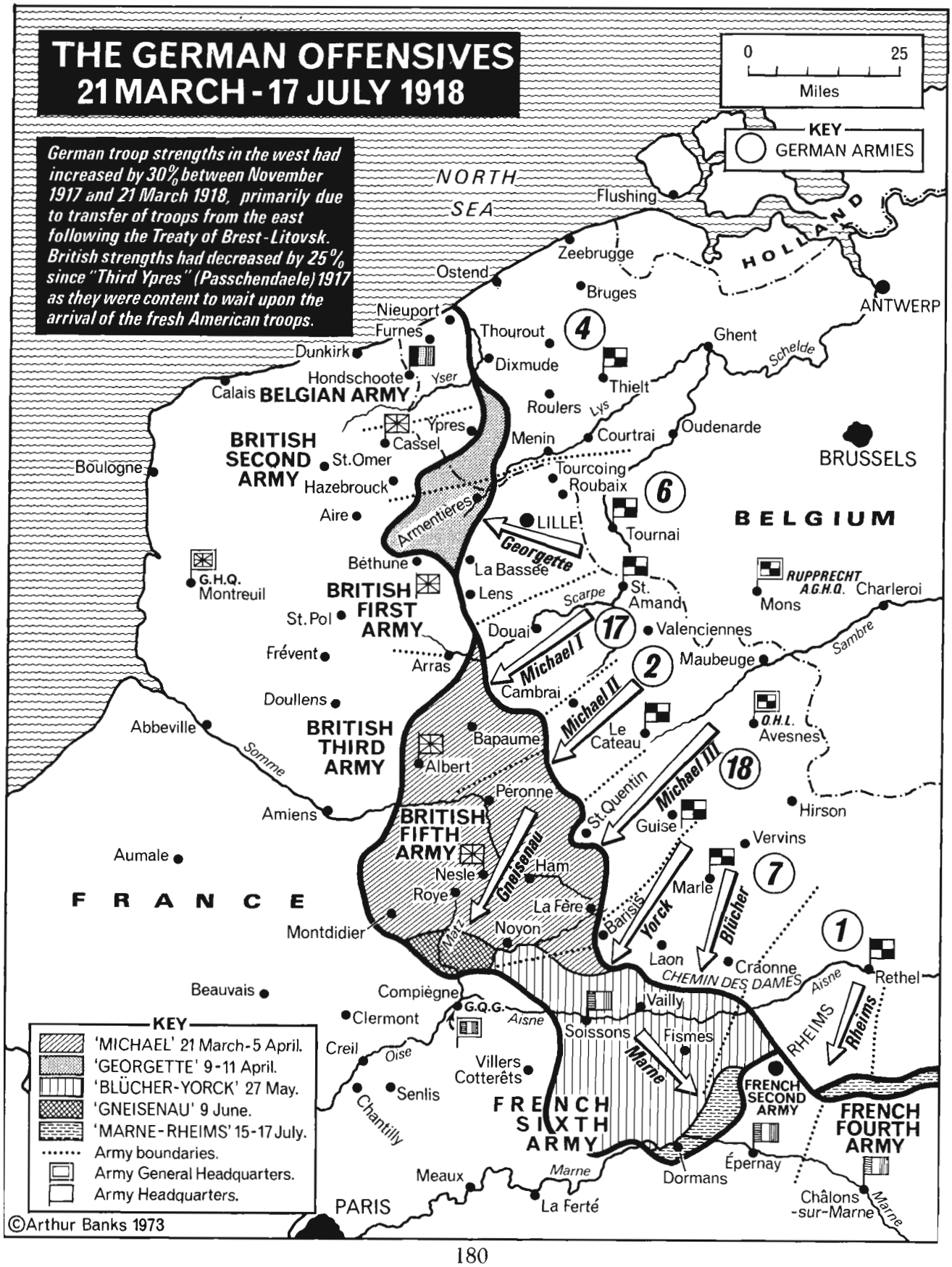
# THE WAR IN 1918

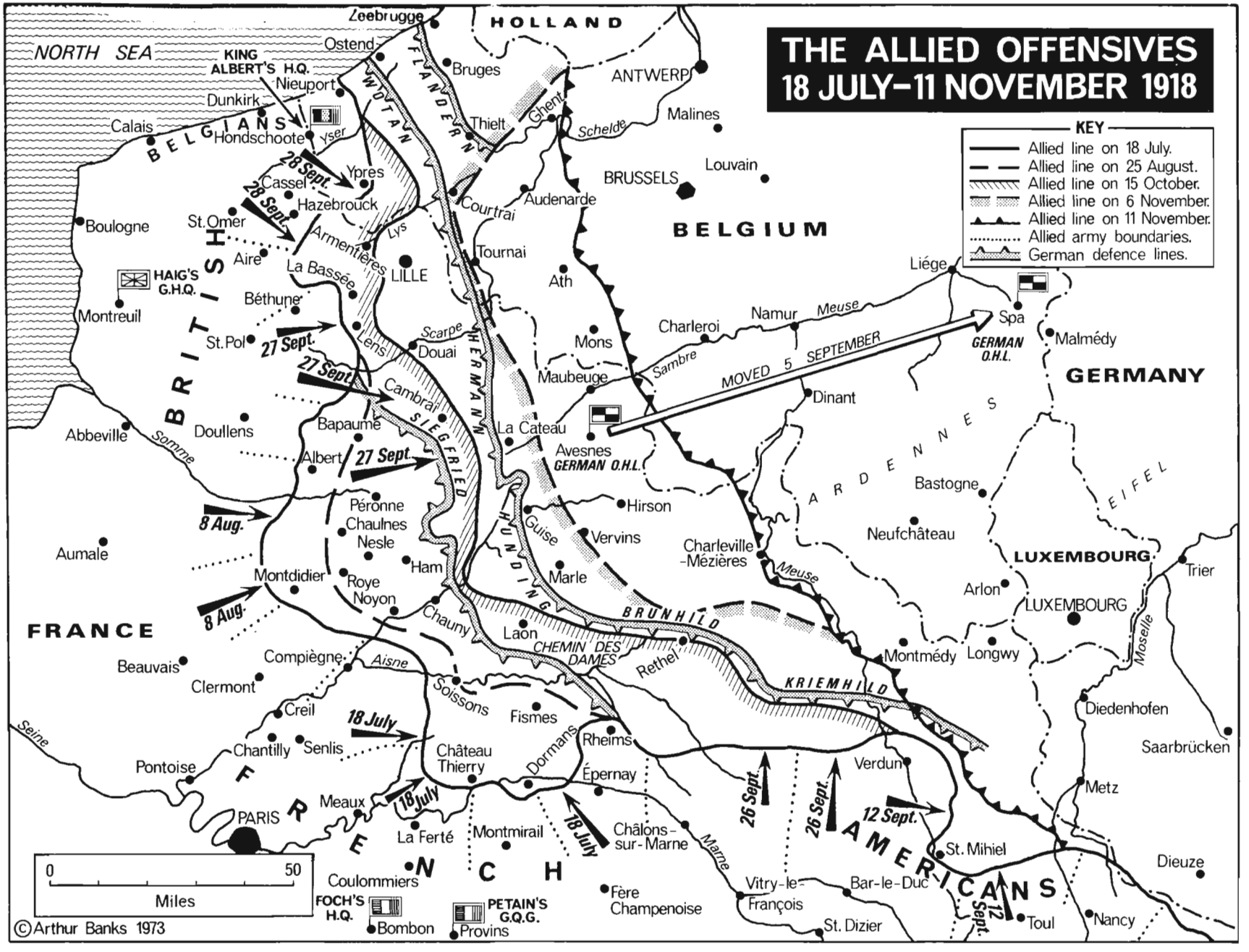
The war weariness which had assailed the Russian people at the start of winter in 1917–1918 threatened to spread to other countries which had been subjected to many years of heavy casualties and short rations. The German home front was hard-pressed by the British blockade while the British themselves had come close to disaster during the worst month of sinkings by U-boat, April 1917. There was widespread disaffection in Austria-Hungary, accentuated by conflicts between the nationalities within the Empire, and an extensive peace movement in Bulgaria, while desertions from the Turkish army in Palestine began to increase sharply. It was therefore essential for Hindenburg and Ludendorff to achieve a rapid military victory on the Western Front, using reinforcements from the East to defeat the British and French armies in the field before the Americans flooded in. In March 1917 there were three Allied soldiers to every two Germans in France and Belgium: a year later, the troop trains from Russia had changed the balance to four Germans to every three Allies.

The French and British prime ministers, Clemenceau and Lloyd George, anticipated a hard thrust by Germany; but no one believed it possible for Ludendorff to have achieved such concentration of firepower as the Germans mounted in March 1918. Within a week the Germans penetrated the Allied line to a depth of forty miles, although the Germans caused problems to themselves by outrunning their supplies. In April they struck farther north, penetrating a section of the Flanders Front held by inexperienced Portuguese troops; and in May Ludendorff succeeded in bringing the campaign back to the Marne and threatening Paris. His last great stroke, around Rheims on 15 July, was checked by astute defensive positioning on the part of Pétain. The German drive was brought to a standstill, with an exhausted army exposing the flanks of a series of salients to counter-attack.

The Allies had at last accepted the principle of unified command, entrusting Foch with the task of throwing back the Germans. American troops, disembarking in France at the rate of a quarter of a million each month, replenished the Allied armies. On 18 July tanks (as at Cambrai) provided the spearhead for Foch's counter-offensive although it was the German break in morale on 8 August which convinced Ludendorff Germany could not win the War. In September the Allied attacks seemed to lose impetus, but the British at last penetrated the Hindenburg Line on 29 September. At the same time news reached Supreme German Headquarters of collapse elsewhere: Bulgaria capitulated, after Franchet d'Espèrey's Salonika armies broke through on the Macedonian Front (page 204); Allenby and Lawrence's Arab Legion entered Damascus (3 October), and the Turks began to seek peace; at the end of October the Italians, with British and French support, launched a furious offensive on the Piave and induced Austria-Hungary to seek terms (page 203). Lloyd George, who had long believed in 'knocking away the props from under Germany', found his policy vindicated.

Hindenburg accepted the need for peace on 3 October, but he became more optimistic once he saw the Allies were themselves tiring. It was, in the end, bread riots, revolution and a mutiny of the fleet which convinced the German High Command the war was over. The tightening grip of the blockade prevented any hopes of further resistance, while a mass influenza epidemic lowered the morale of the civilian population. A German armistice delegation set out from Berlin on 6 November. The Armistice became effective five days later.


THE GERMAN OFFENSIVES
21 MARCH - 17 JULY 1918
German troop strengths in the west had increased by 30% between November 1917 and 21 March 1918, primarily due to transfer of troops from the east following the Treaty of Brest-Litovsk. British strengths had decreased by 25% since "Third Ypres" (Passchendaele) 1917 as they were content to wait upon the arrival of the fresh American troops.
0
25
Miles
KEY
GERMAN ARMIES
NORTH SEA
Flushing
HOLLAND
Zeebrugge
Ostend
Bruges
ANTWERP
Nieuport
Furnes
Thourout
4
Ghent
Dunkirk
Dixmude
Schelde
Hondschoote
Yser
Thielt
Calais
BELGIAN ARMY
Roulers
Lys
Ypres
Cassel
Menin
Courtrai
Oudenarde
BRUSSELS
BRITISH SECOND ARMY
St.Omer
Boulogne
Tourcoing
Roubaix
6
Hazebrouck
Armentières
Aire
LILLE
Georgette
Tournai
BELGIUM
Béthune
La Bassée
RUPPRECHT A.G.H.Q.
Charleroi
G.H.Q. Montreuil
BRITISH FIRST ARMY
Lens
St. Amand
Scarpe
Mons
St. Pol
Douai
17
Valenciennes
Frévent
Arras
Michael I
2
Maubeuge
Sambre
Cambrai
Michael II
Doullens
O.H.L. Avesnes
Le Cateau
Abbeville
BRITISH THIRD ARMY
Bapaume
Michael III
18
Somme
Albert
Péronne
St.Quentin
Hirson
Amiens
Guise
BRITISH FIFTH ARMY
Vervins
Aumale
Nesle
Ham
Marle
7
Gneisenau
Roye
La Fère
Barisis
Yorck
Blücher
FRANCE
Montdidier
Noyon
Laon
1
Rethel
Beauvais
Compiègne
G.Q.G.
Clermont
Vailly
Craonne
CHEMIN DES DAMES
Aisne
Soissons
Fismes
RHEIMS
Rheims
Creil
Oise
Villers Cotterêts
Marne
FRENCH SECOND ARMY
Senlis
Chantilly
FRENCH SIXTH ARMY
FRENCH FOURTH ARMY
Épernay
Meaux
Marne
Dormans
Châlons -sur-Marne
PARIS
La Ferté
KEY
'MICHAEL' 21 March-5 April.
'GEORGETTE' 9-11 April.
'BLÜCHER-YORCK' 27 May.
'GNEISENAU' 9 June.
'MARNE-RHEIMS' 15-17 July.
Army boundaries.
Army General Headquarters.
Army Headquarters.
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THE ALLIED OFFENSIVES
18 JULY–11 NOVEMBER 1918
KEY
Allied line on 18 July.
Allied line on 25 August.
Allied line on 15 October.
Allied line on 6 November.
Allied line on 11 November.
Allied army boundaries.
German defence lines.
NORTH SEA
HOLLAND
BELGIUM
GERMANY
FRANCE
BRITISH
BELGIANS
FRENCH
AMERICANS
Zeebrugge
Ostend
Bruges
ANTWERP
KING ALBERT'S H.Q.
Nieuport
Dunkirk
Calais
Hondschoote
Yser
WOTAN
FLANDERN
Thielt
Ghent
Scheldt
Malines
Louvain
BRUSSELS
28 Sept.
Ypres
Cassel
Hazebrouck
Courtrai
Audenarde
Boulogne
St. Omer
Armentières
Lys
Tournai
Aire
La Bassée
LILLE
Ath
HAIG'S G.H.Q.
Béthune
Montreuil
Liége
Charleroi
Namur
Meuse
Spa
GERMAN O.H.L.
Malmédy
St. Pol
27 Sept.
Lens
Scarpe
Douai
Mons
HERMANN
Sambre
MOVED 5 SEPTEMBER
Maubeuge
Dinant
Cambrai
SIEGFRIED
Abbeville
Somme
Doullens
Bapaume
La Cateau
Avesnes
GERMAN O.H.L.
Albert
27 Sept.
ARDENNES
Bastogne
EIFEL
Péronne
8 Aug.
Chaulnes
Nesle
Hirson
Guise
Vervins
Charleville
-Mézières
Neufchâteau
LUXEMBOURG
Trier
Aumale
Montdidier
Roye
Noyon
Ham
Marle
Meuse
Arlon
LUXEMBOURG
8 Aug.
Chauny
HUNDING
BRUNHILD
Laon
CHEMIN DES DAMES
Rethel
Montmédy
Longwy
Moselle
Beauvais
Compiègne
Aisne
Clermont
Soissons
KRIEMHILD
Creil
18 July
Fismes
Diedenhofen
Seine
Chantilly
Senlis
Château Thierry
Dormans
Rheims
Saarbrücken
Pontoise
Épernay
Verdun
Meaux
18 July
26 Sept.
26 Sept.
12 Sept.
Metz
PARIS
La Ferté
Montmirail
18 July
Châlons-sur-Marne
Marne
St. Mihiel
Dieuze
0
50
Miles
Coulommiers
FOCH'S H.Q.
Bombon
PETAIN'S G.Q.G.
Provins
Fère Champenoise
Vitry-le-François
Bar-le-Duc
12 Sept.
Toul
Nancy
St. Dizier
©Arthur Banks 1973

# THE GERMAN ADVANCE AND THE BRITISH RETREAT MARCH - APRIL 1918

*Important note: on 3 April, the Allied armies were unified under one supreme "generalissimo" (Foch).*

| RIVAL STRENGTHS | | |
|---|---|---|
| ARMIES | DIVISIONS | GUNS |
| German 17th. Army | 25 | 2,234 |
| German 2nd. Army | 21 | 1,751 |
| German 18th. Army | 25 | 2,623 |
| British 3rd. Army | 14 | 1,120 |
| British 5th. Army | 12 | 1,566 |

*This map depicts the German advance and the British retreat between 21 March and 28 March 1918, together with the line re-established on 4 and 5 April 1918.*
*On 22 March, the first breakthrough south of the River Somme occurred, and by 26 March, the lines of the British Fifth Army (south of the Somme) were near to total disintegration. Between 26 and 27 March, many successive positions were rapidly and temporarily taken up.*
*The German offensive was a tactical success but a strategic failure. Main reasons: lack of logistical, strategic, and tactical fire support mobility. Also, Allied aircraft strafing attacks demoralized the advancing troops.*

BRITISH FIRST ARMY

GERMAN SIXTH ARMY

BRITISH THIRD ARMY (Byng)
- XVII Corps (Fergusson)
- VI Corps (Haldane)
- IV Corps (Harper)
- V Corps (Fanshawe)

BRITISH FIFTH ARMY (Gough)
- VII Corps (Congreve)
- XIX Corps (Watts)
- XVIII Corps (Maxse)
- III Corps (Butler)

FRENCH SIXTH ARMY

LENS, DOUAI, ARRAS, CAMBRAI, ST. QUENTIN, PÉRONNE, ALBERT, BAPAUME, MONTDIDIER, NOYON, AMIENS, Gavrelle, Gouzeaucourt, Barisis

28 March 1918, British attacks on Arras front.

GERMAN SEVENTEENTH ARMY (von Below)

GERMAN SECOND ARMY (von der Marwitz)

GERMAN EIGHTEENTH ARMY (von Hutier)

32 ASSAULT DIVISIONS (39 IN RESERVE)

Fampoux, Scarpe, Monchy, Cojeul, Sensée, Scheldt Canal, Canal du Nord, Cherisy, Fontaine, Croisilles, Bullecourt, Ayette, Boyelles, St.Leger, Queant, Noreuil, Courcelles, Vaulx, Lagnicourt, Doignies, Ablainzeville, Gominecourt, Gomiecourt, Beaumetz, Favreuil, Dernicourt, Flesquières, Hebuterne, Bucquoy, Puisieux, Grevillers, Hermies, Havrincourt, Serre, Miraumont, Le Bacquière, Beaumont Hamel, Ancre, Courcelette, Barastre, Bertincourt, Villers Plouich, Beaucourt, Ligny, Metz en Conture, Le Sars, Bocquigny, Le Transloy, Gouzeaucourt, Gonnelieu, Martinpuich, Thiepval, Les boeufs, Sailly-Saillisel, Equancourt, Bazentin, Morval, Rancourt, Nurlu, Le Catelet, Montauban, Combles, Epéhy, Carnoy, Moislains, Ronssoy, Maricourt, Maurepas, St. Émilie, Hargicourt, Méaulte, Templeux, Roisel, Villeret, Morlancourt, Etirehem, Bray, Hervilly, Vaux, Sailly le Sec, Somme & Canal, Dompierre, Braches, Doingt, Bouchy, Le Verguier, Cérisy, Proyart, Le Mesnil, Bernes, Morcourt, Estrees, Vrainges, Vermand, Villers Bretonneux, Abancourt, Harbonnières, Soyécourt, Caulaincourt, Villevêque, Marcelcave, Ablaincourt, Monchy Lagache, Beavois, Hangard, Licourt, Moligneux, Savy, Derhuin, Rosières, Chaulnes, Croix, Vaux, Roupy, Mezières, Vrely, Maigny, Happencourt, Essigny, Moreuil, Le Quesnel, Hattencourt, Nesle, Aubigny, Benay, Fresnoy, Rouvroy, Hangest, La Chavatte, St. Simon, Merville, Arvillers, Liancourt, Oliezy, Contoire, Erches, Fresnoy, Brouchy, Jussy, Davenscourt, Villeselve, Cugny, Menessis, Roye, Guerbigny, Tergnier, Quessy, Libermont, Guiscard, Beauvraignes, Tilloloy, Chauny, Conchy, Lassigny, St. Gobain, Oise Canal, Folembray, Coucy

KEY
- Line on 21 March 1918.
- General line on 23 March 1918.
- General line on 24 March 1918.
- Line of "Carey's Force".
- General line on morning 26 March 1918.
- Successive defence lines throughout 26 March 1918.
- Line in April 1918.

0 5 10 Miles

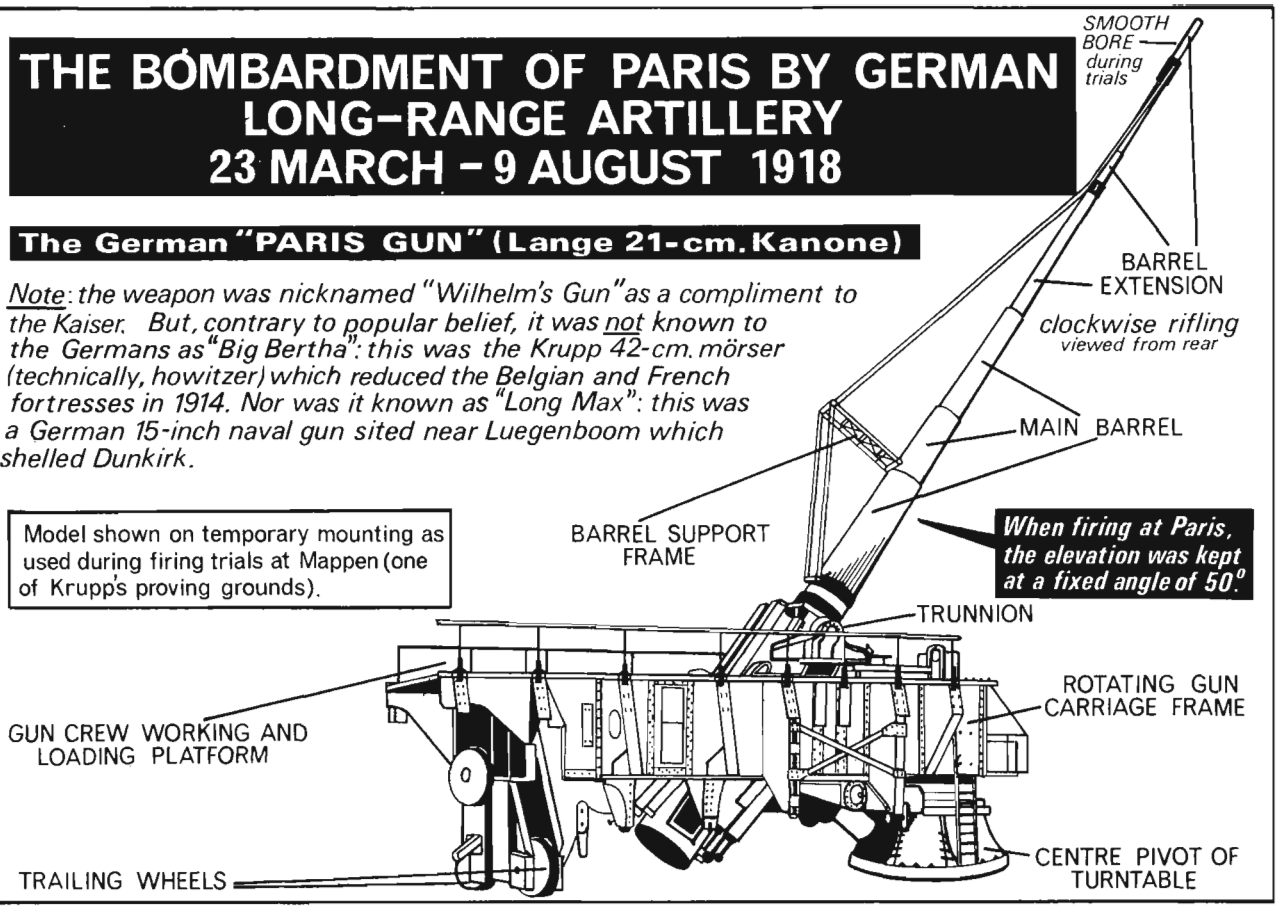
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# THE BOMBARDMENT OF PARIS BY GERMAN LONG-RANGE ARTILLERY 23 MARCH - 9 AUGUST 1918

## The German "PARIS GUN" (Lange 21-cm. Kanone)

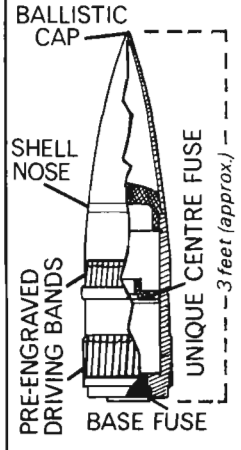
*Note: the weapon was nicknamed "Wilhelm's Gun" as a compliment to the Kaiser. But, contrary to popular belief, it was not known to the Germans as "Big Bertha": this was the Krupp 42-cm. mörser (technically, howitzer) which reduced the Belgian and French fortresses in 1914. Nor was it known as "Long Max": this was a German 15-inch naval gun sited near Luegenboom which shelled Dunkirk.*

Model shown on temporary mounting as used during firing trials at Mappen (one of Krupp's proving grounds).

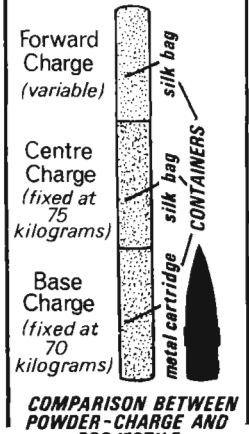



| | |
|---|---|
| Maximum range of gun: | 80 miles. |
| Maximum muzzle velocity: | 5,399 feet per sec. |
| Barrel life: | 60 shells. |
| Weight of shell: | 228 pounds. |
| Propellant charge (max.): | 430 pounds. |
| Time taken by shell to travel 80 miles: | 3 mins. 2 secs. |

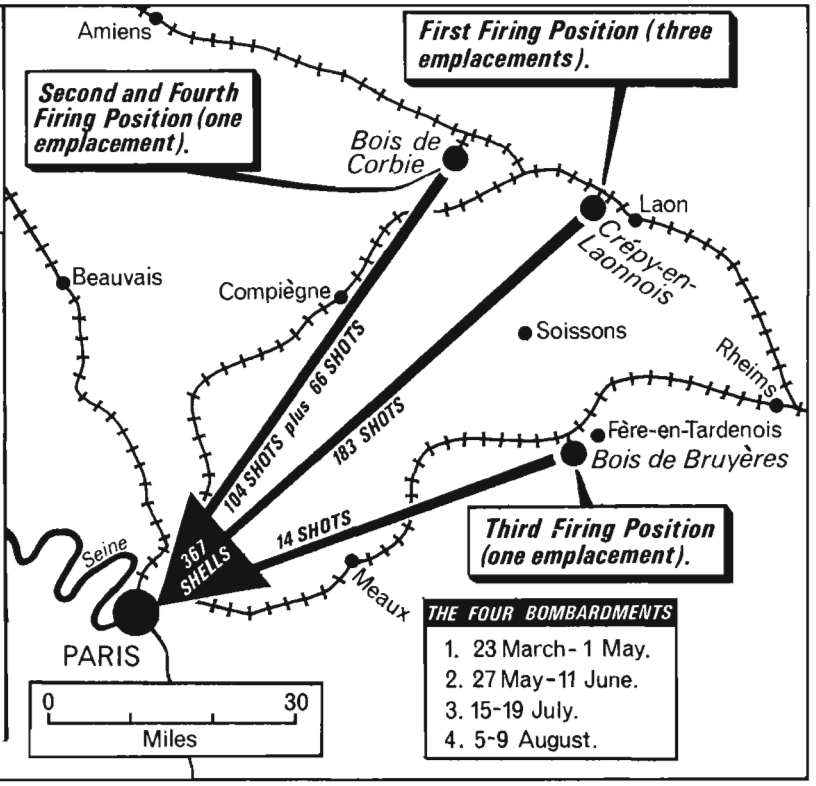
### PROJECTILE




### POWDER-CHARGE




**COMPARISON BETWEEN POWDER-CHARGE AND PROJECTILE**




**THE FOUR BOMBARDMENTS**

1. 23 March - 1 May.
2. 27 May - 11 June.
3. 15-19 July.
4. 5-9 August.

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# GENERAL DISTRIBUTION OF SHELLS FALLING ON PARIS

## DISCREPANCIES BETWEEN GERMAN AND FRENCH SOURCES

| | GERMAN VERSIONS | FRENCH VERSIONS |
|---|---|---|
| Total shells fired. | 367 | 320 |
| First bombardment. | 183 | 159 |
| Second bombardment. | 104 | 83 |
| Third bombardment. | 14 | 14 |
| Fourth bombardment. | 66 | 64 |

*Note: discrepancies due to defining the limits of Paris (Central) and Paris (Greater)? Perhaps some shells completely overshot the conurbation area?*

**3** ***1440 hours 9 August, final shell from 'Paris Gun' falls between nos. 58 and 60 Rue Saint-Denis at Aubervilliers.***

**2** ***1630 hours 29 March, most destructive shell from 'Paris Gun' kills 88 worshippers and injures a further 68.***

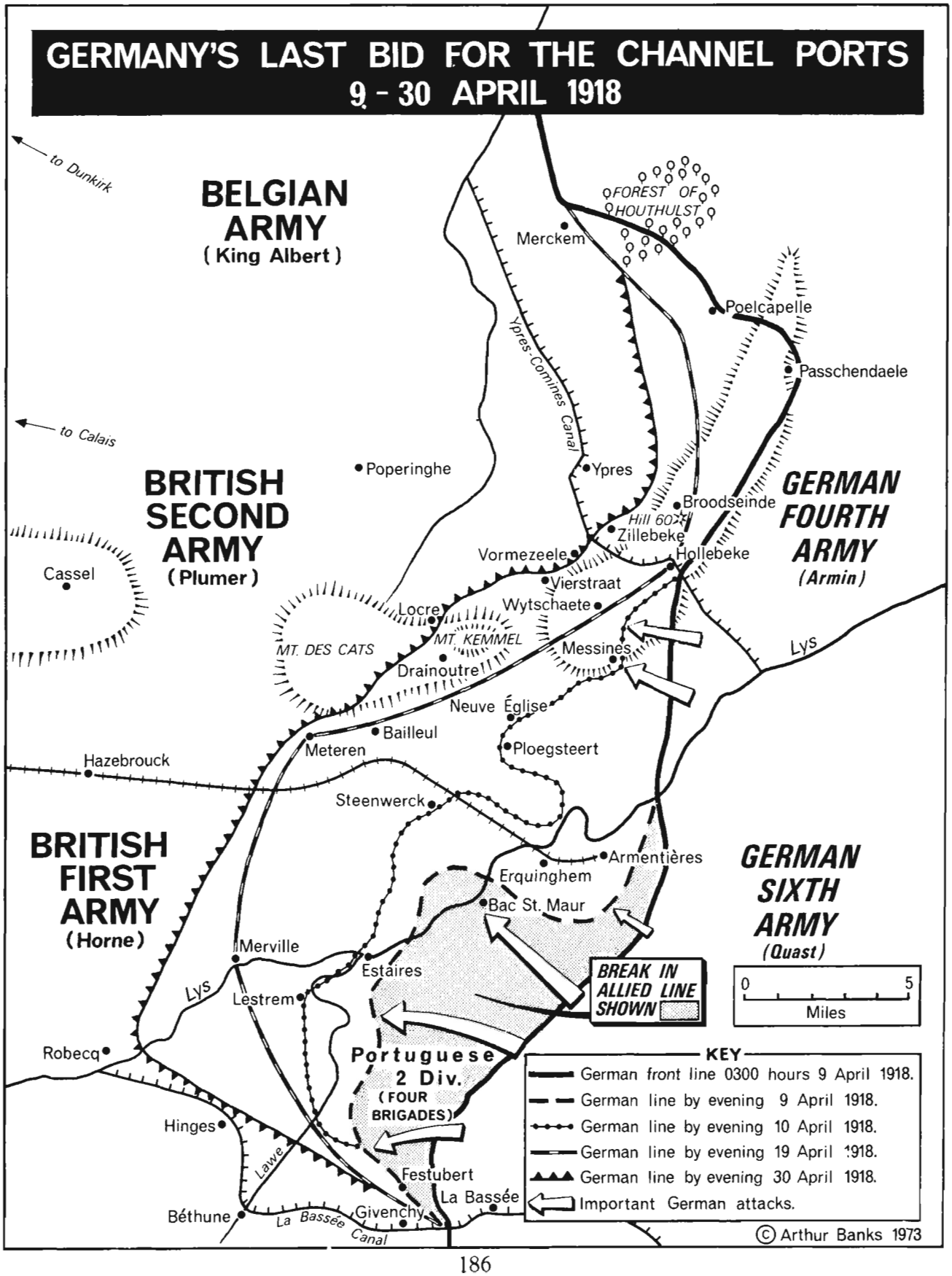
**1** ***0720 hours 23 March, first shell from 'Paris Gun' falls on Quai de Seine (outside no. 6).***

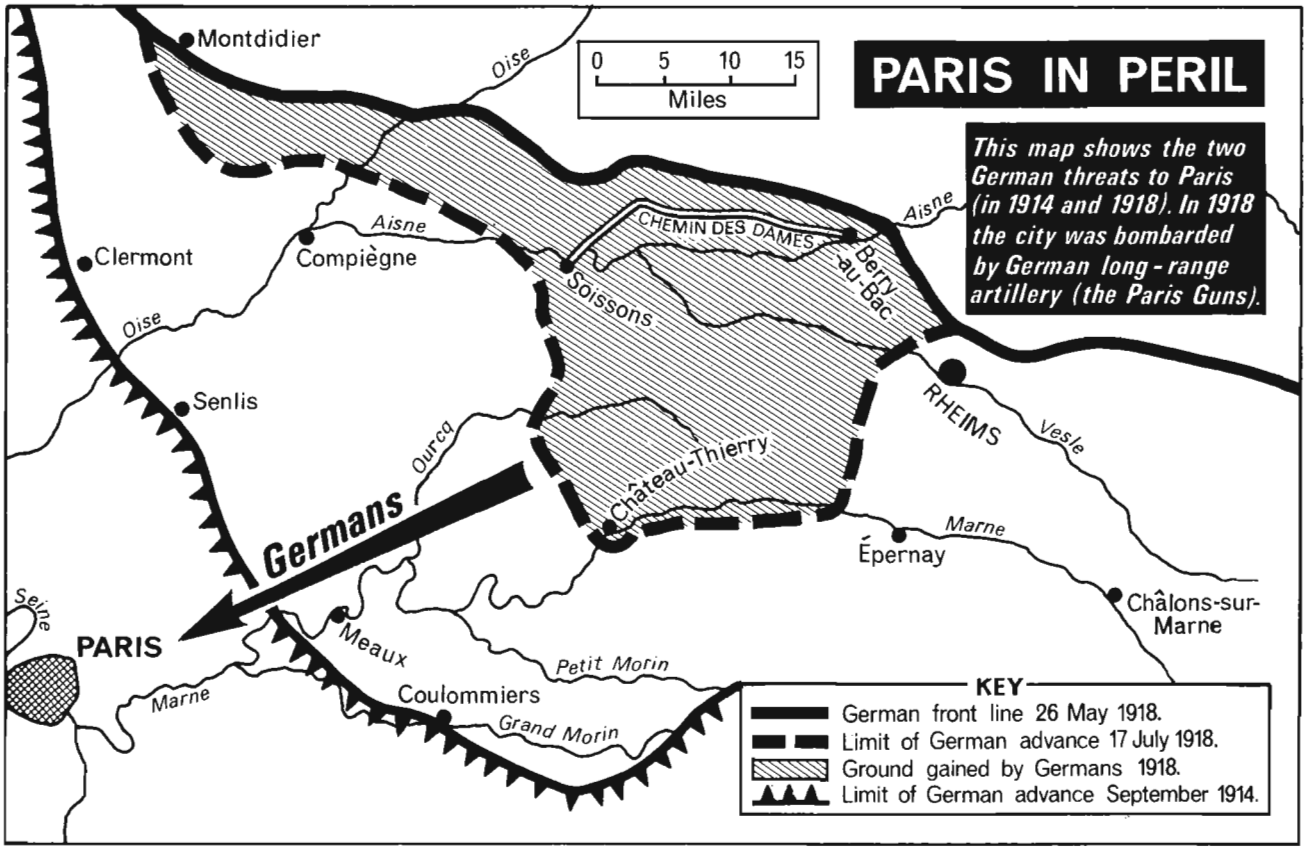
CLICHY
LA CHAPELLE
MONTMARTRE
LA VILLETTE
PANTIN
LES BATIGNOLLES
Boulevard de Clichy
Boulevard Magenta
LE PRE ST. GERVAIS
BELLEVILLE
Ave. de la Gde. Armée
Boulevard Haussmann
Ave. des Champs Elysées
CHARONNE
Boulevard Voltaire
LOUVRE
CHURCH OF ST. GERVAIS
PASSY
BOIS DE BOULOGNE
CHAMP DE MARS
INVALIDES
AUTEUIL
Seine
LUXEMBOURG
JARDIN DES PLANTES
GRENELLE
Boulevard du Montparnasse
BOULOGNE
VAUGIRARD
Boulevard St. Jacques
Boulevard de la Gare
Seine
BOIS DE VINCENNES
ISSY
VANVES
MALAKOFF

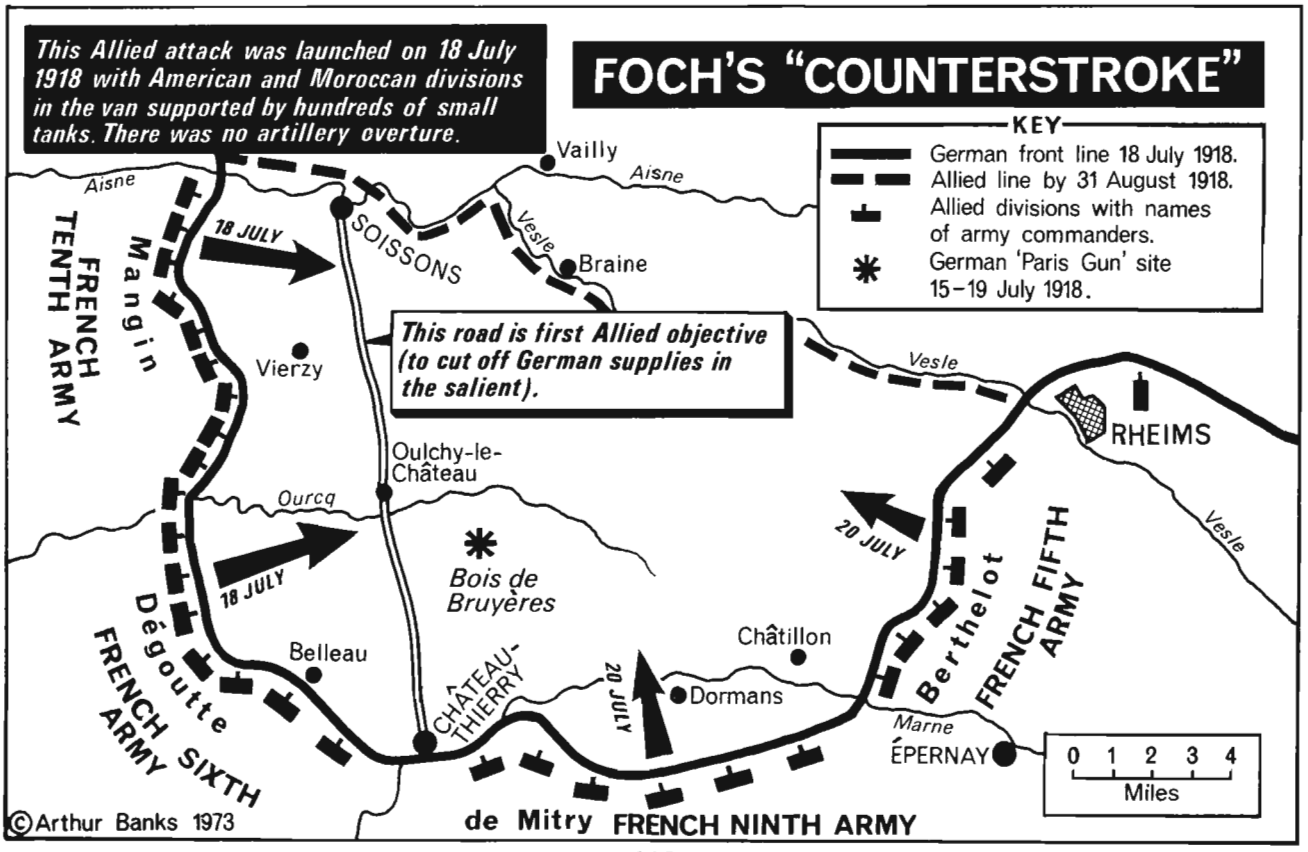
KEY
● Definite shell hits.

0 1000 Yards

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GERMANY'S LAST BID FOR THE CHANNEL PORTS
9 - 30 APRIL 1918
to Dunkirk
BELGIAN ARMY
( King Albert )
FOREST OF HOUTHULST
Merckem
Poelcapelle
Passchendaele
Ypres-Comines Canal
to Calais
BRITISH SECOND ARMY
( Plumer )
Poperinghe
Ypres
Broodseinde
Hill 60
Zillebeke
Hollebeke
GERMAN FOURTH ARMY
(Armin)
Vormezeele
Vierstraat
Cassel
Locre
Wytschaete
MT. KEMMEL
MT. DES CATS
Drainoutre
Messines
Lys
Neuve Église
Bailleul
Meteren
Ploegsteert
Hazebrouck
Steenwerck
BRITISH FIRST ARMY
(Horne)
Armentières
Erquinghem
Bac St. Maur
GERMAN SIXTH ARMY
(Quast)
Merville
Estaires
Lys
Lestrem
BREAK IN ALLIED LINE SHOWN
0
5
Miles
Robecq
Portuguese 2 Div. (FOUR BRIGADES)
KEY
German front line 0300 hours 9 April 1918.
German line by evening 9 April 1918.
German line by evening 10 April 1918.
German line by evening 19 April 1918.
German line by evening 30 April 1918.
Important German attacks.
Hinges
Lawe
Festubert
La Bassée
Béthune
Givenchy
La Bassée Canal
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PARIS IN PERIL
This map shows the two German threats to Paris (in 1914 and 1918). In 1918 the city was bombarded by German long-range artillery (the Paris Guns).
0 5 10 15
Miles
Montdidier
Oise
Aisne
Clermont
Compiègne
CHEMIN DES DAMES
Soissons
Berry-au-Bac
Senlis
Ourcq
Germans
Château-Thierry
RHEIMS
Vesle
Marne
Épernay
Châlons-sur-Marne
Seine
PARIS
Meaux
Petit Morin
Coulommiers
Grand Morin
KEY
German front line 26 May 1918.
Limit of German advance 17 July 1918.
Ground gained by Germans 1918.
Limit of German advance September 1914.


FOCH'S "COUNTERSTROKE"
This Allied attack was launched on 18 July 1918 with American and Moroccan divisions in the van supported by hundreds of small tanks. There was no artillery overture.
KEY
German front line 18 July 1918.
Allied line by 31 August 1918.
Allied divisions with names of army commanders.
German 'Paris Gun' site 15–19 July 1918.
Vailly
Aisne
SOISSONS
Vesle
Braine
18 JULY
FRENCH TENTH ARMY
Mangin
Vierzy
This road is first Allied objective (to cut off German supplies in the salient).
Oulchy-le-Château
Ourcq
Bois de Bruyères
18 JULY
Dégoutte
FRENCH SIXTH ARMY
Belleau
CHÂTEAU-THIERRY
20 JULY
Dormans
Châtillon
20 JULY
Berthelot
FRENCH FIFTH ARMY
RHEIMS
Vesle
Marne
ÉPERNAY
0 1 2 3 4
Miles
de Mitry
FRENCH NINTH ARMY
©Arthur Banks 1973

# THE AMERICAN EXPEDITIONARY FORCE IN EUROPE 1918

*Note: the United States lost more soldiers from illness than it lost from all battles combined.*

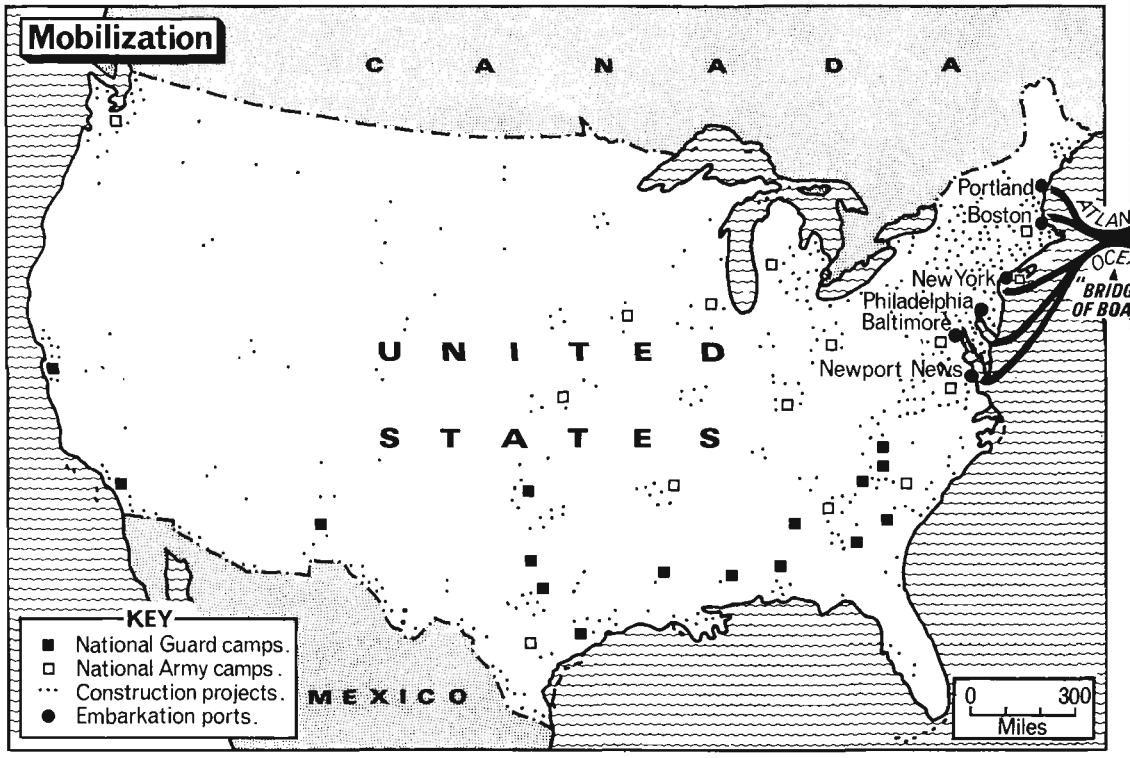
## NUMBERS OF UNITED STATES TROOPS

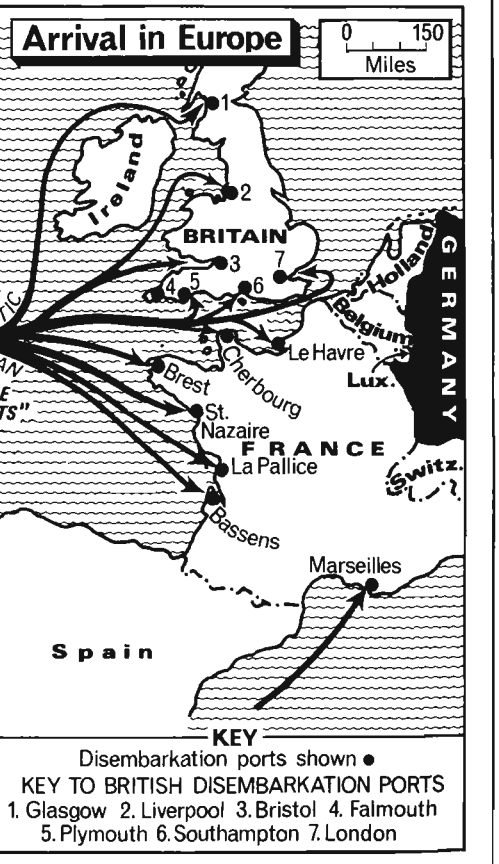
| EMBARKED FOR EUROPE AT: | |
|---|---|
| New York | 1,656,000 men |
| Newport News | 288,000 men |
| Boston | 46,000 men |
| Philadelphia | 35,000 men |
| Portland | 6,000 men |
| Baltimore | 4,000 men |
| PLUS 45,000 TROOPS EMBARKED AT CANADIAN PORTS | |
| Montreal | 32,000 men |
| Quebec | 11,000 men |
| Halifax | 5,000 men |
| St. John's | 1,000 men |
| | 2,084,000 men |

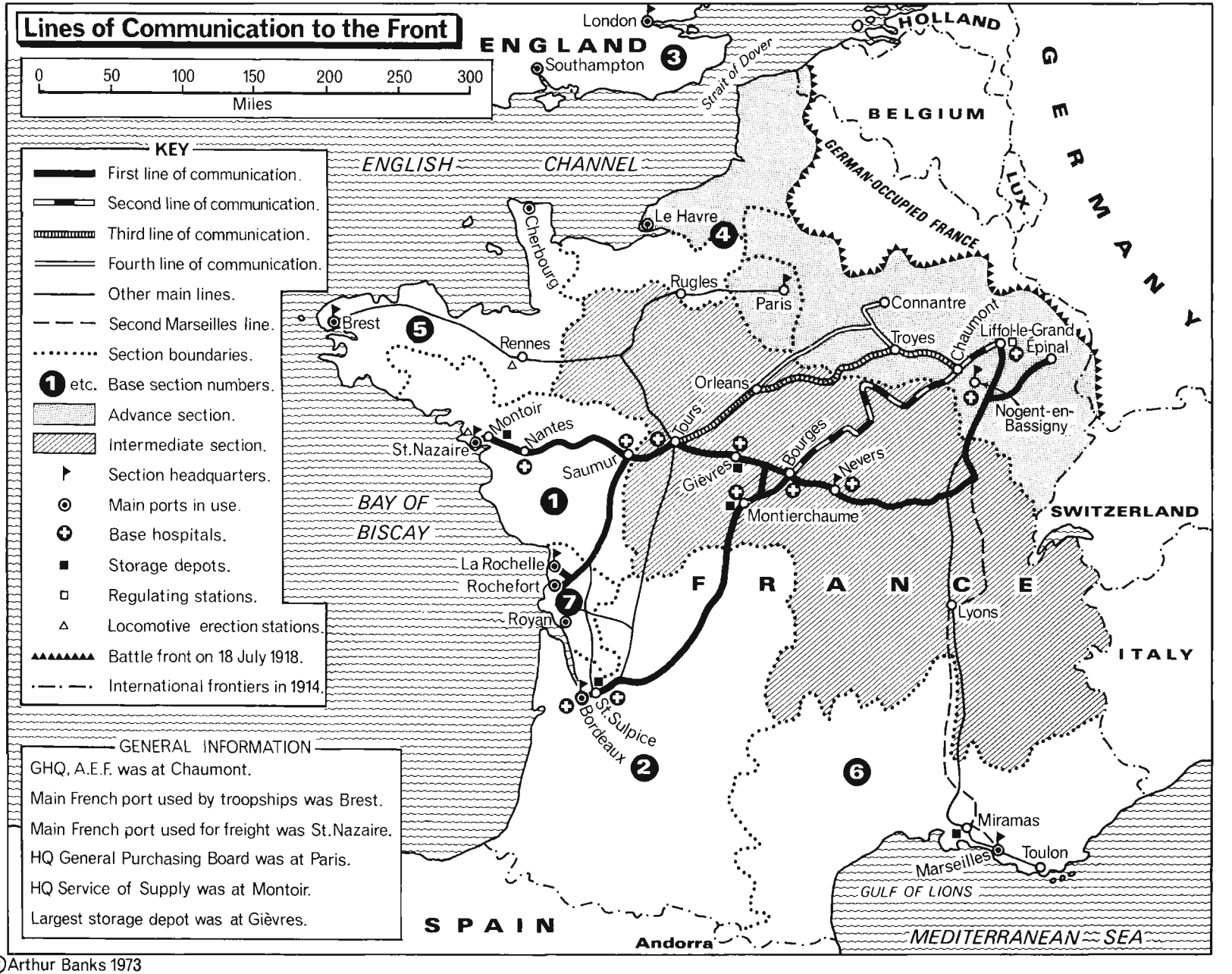
| DISEMBARKED IN EUROPE AT: | |
|---|---|
| Liverpool (including 4,000 at Manchester) | 848,000 men |
| Brest | 791,000 men |
| St. Nazaire | 198,000 men |
| London | 62,000 men |
| Southampton | 57,000 men |
| Bassens (including Bordeaux) | 50,000 men |
| Glasgow | 45,000 men |
| Le Havre | 13,000 men |
| Bristol | 11,000 men |
| La Pallice (including La Rochelle) | 4,000 men |
| Cherbourg | 2,000 men |
| Marseilles | 1,000 men |
| Plymouth | 1,000 men |
| Falmouth | 1,000 men |
| | 2,08 ,000 men |

*Precise figs. 71 men were lost in Atlantic crossings.*

***The United States declared war on Germany on 6 April 1917, and against Austria-Hungary on 7 December 1917. General John Joseph Pershing was appointed commander of the American Expeditionary Force to Europe, and a vast training and camp-building programme was commenced. By May 1918, there were over 500,000 U.S. troops in France, and by mid-July, over 1,000,000 men had arrived in Europe.***






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# AMERICAN INFANTRY DIVISIONAL ORGANIZATION 1918

*Approx. 27,200 men. Guns and machine guns variable.*

**DIVISIONAL HEADQUARTERS**

- *Engineer regiment*
- *Ammunition train*
- *Supply train*
- *Field signals detachment*

*Divisional machine gun battalion*

**FIELD ARTILLERY BRIGADE**

| *REGIMENT* | *REGIMENT* | *REGIMENT* | *TRENCH MORTAR BATTERY* |
|---|---|---|---|

**MEDICAL TRAIN**

| *Four field hospital companies* | *Four field ambulance companies* |
|---|---|

**INFANTRY BRIGADE**

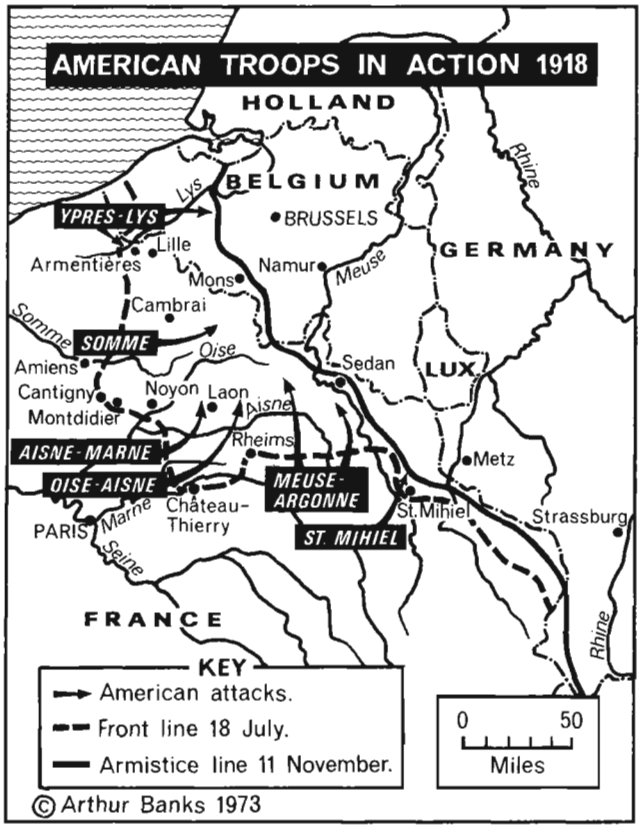
| *REGIMENT* | *REGIMENT* |
|---|---|
| *Three battalions* | *Three battalions* |
| *Machine gun company* | *Machine gun company* |

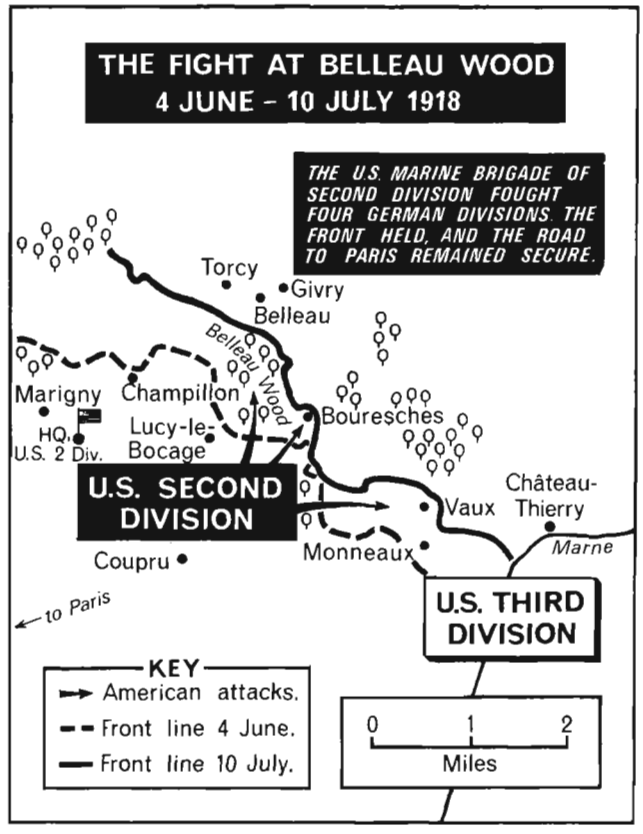
*Brigade machine gun battalion*

**INFANTRY BRIGADE**

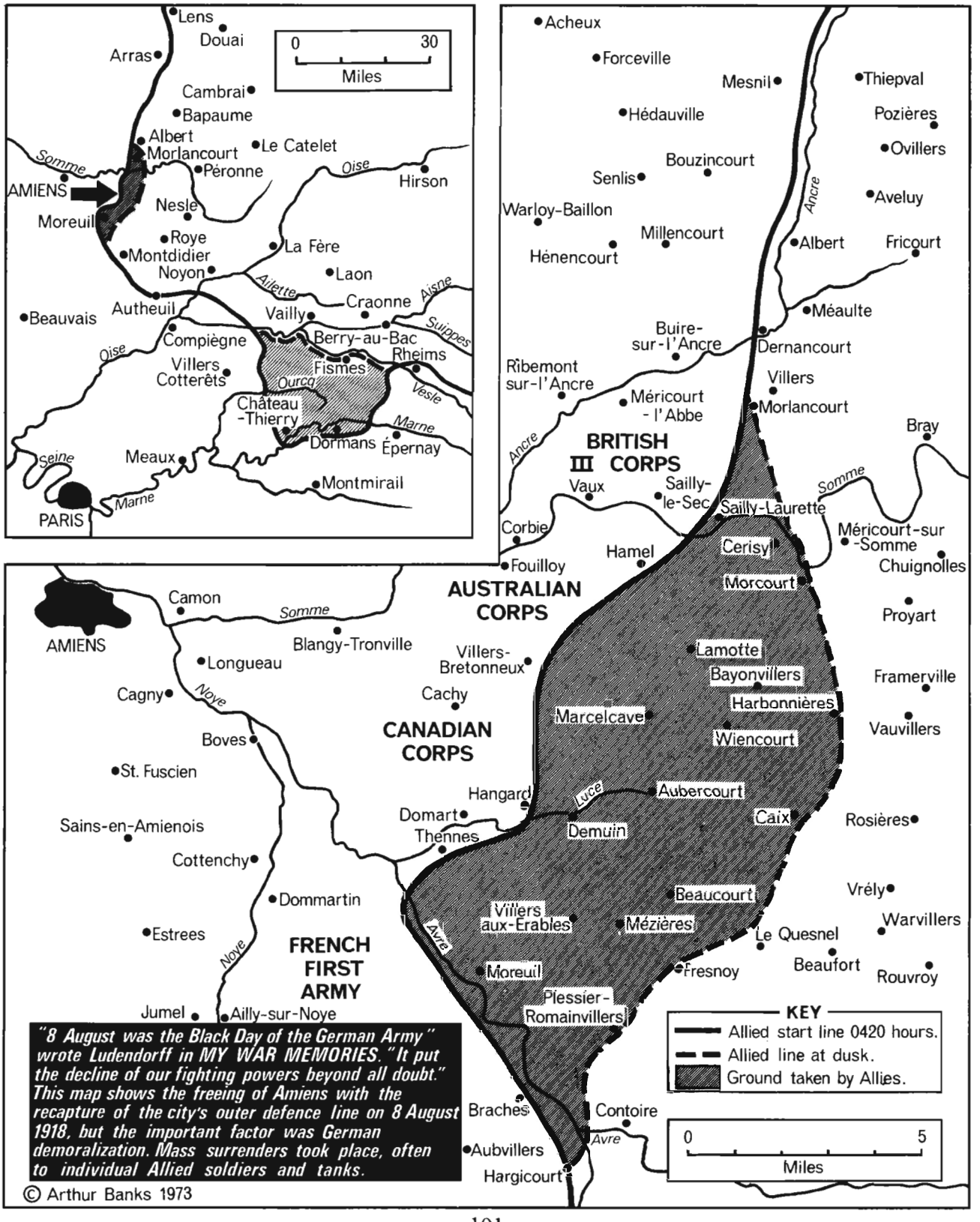
| *REGIMENT* | *REGIMENT* |
|---|---|
| *Three battalions* | *Three battalions* |
| *Machine gun company* | *Machine gun company* |

*Brigade machine gun battalion*



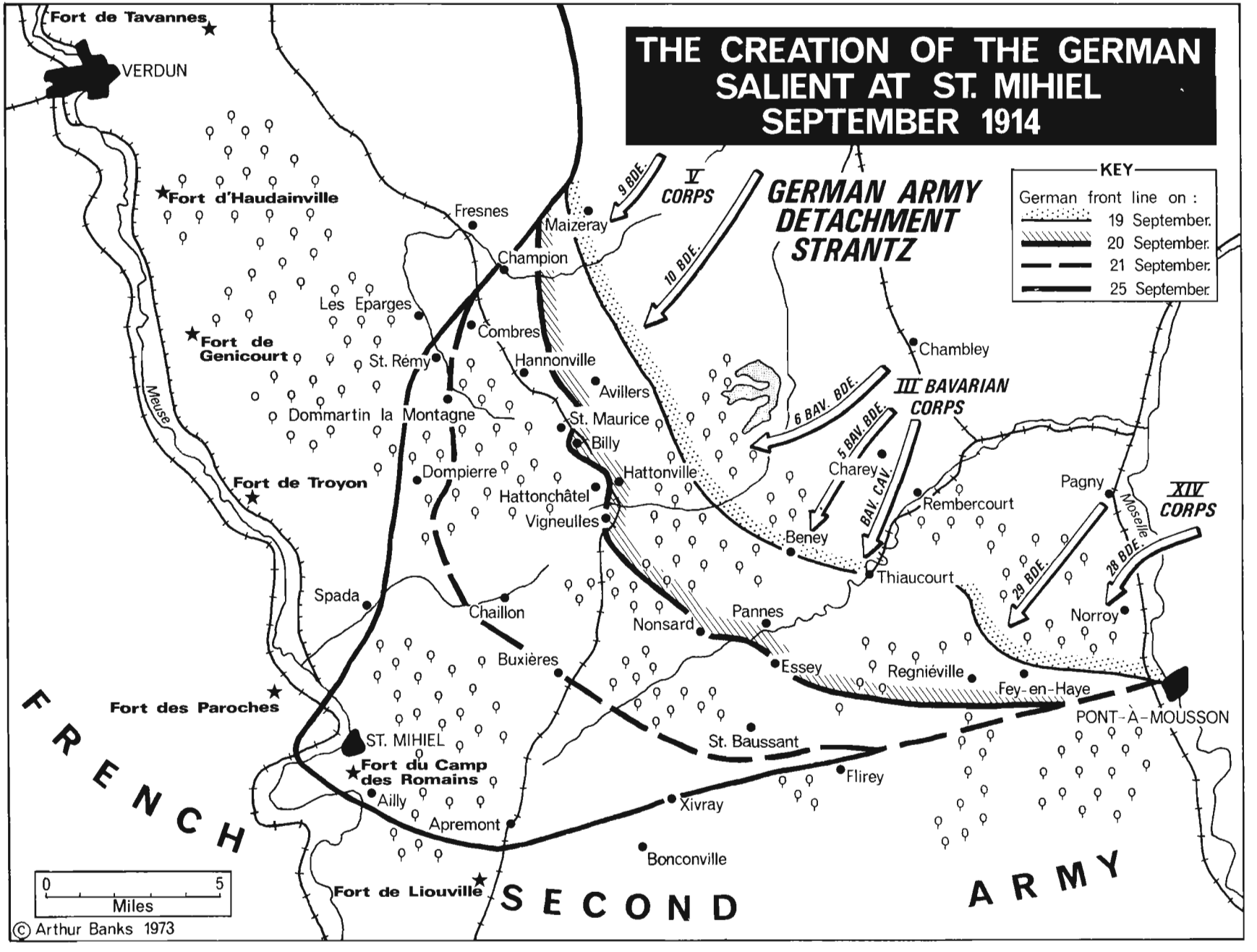



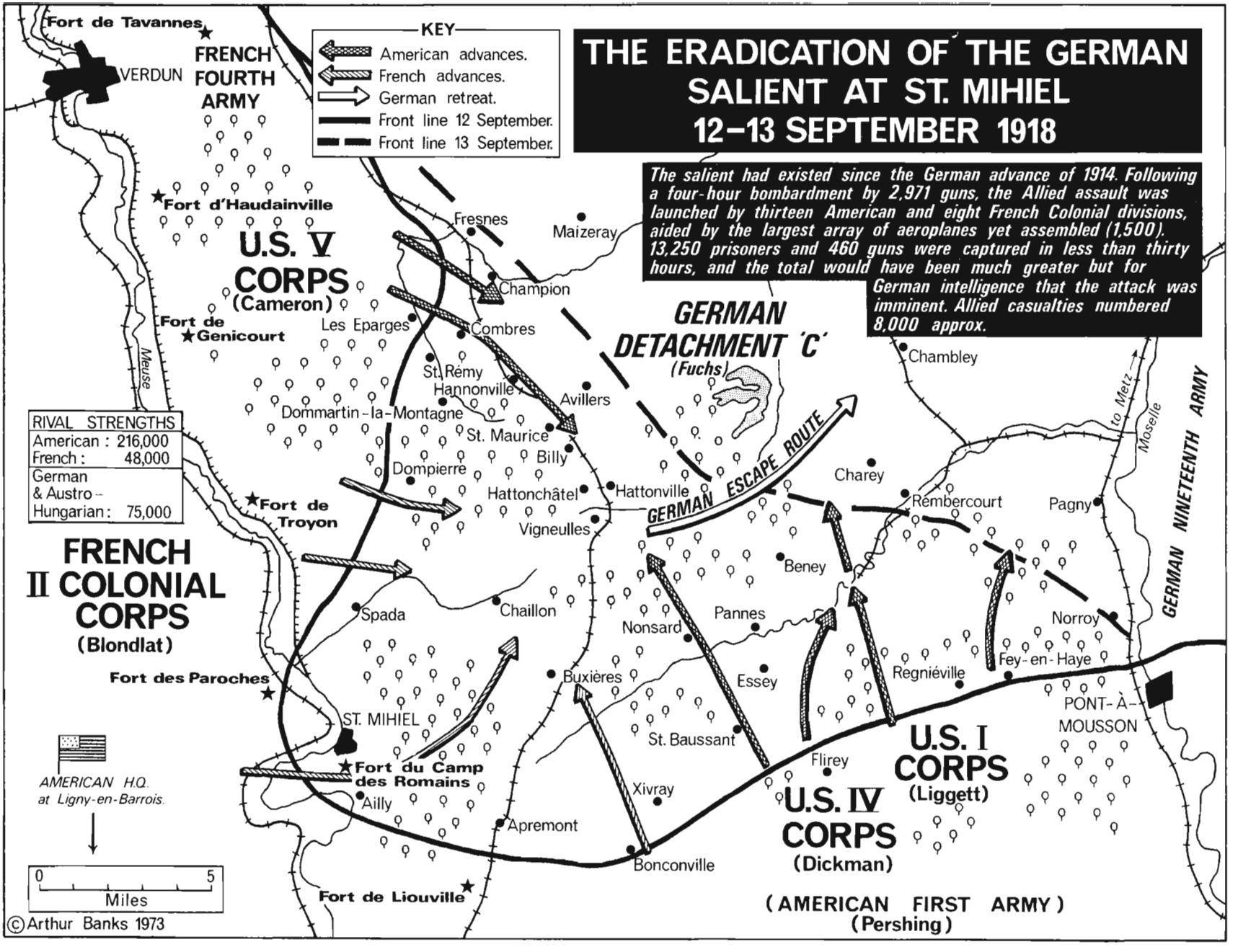
# "BLACK DAY OF THE GERMAN ARMY" 8 AUGUST 1918

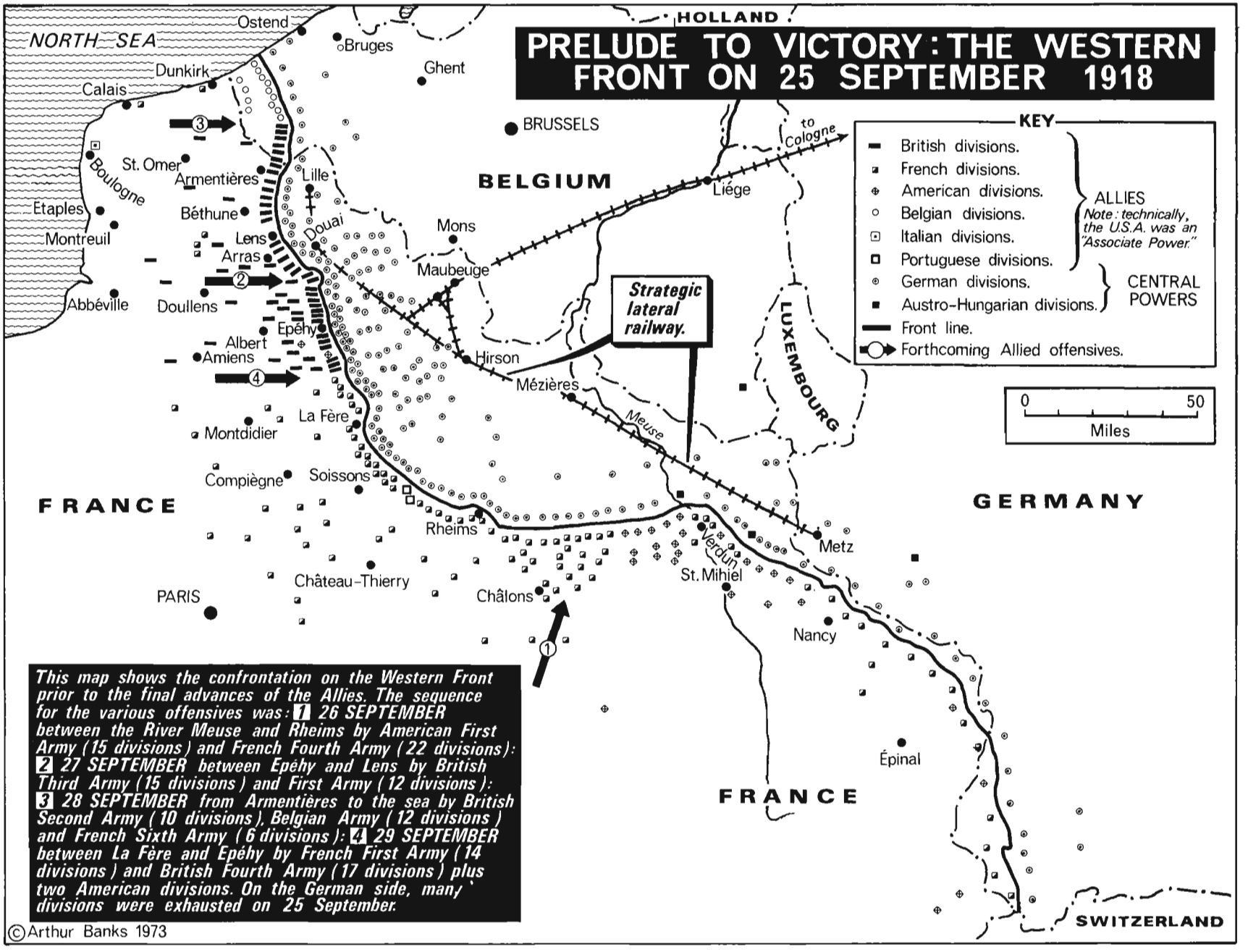



*"8 August was the Black Day of the German Army" wrote Ludendorff in MY WAR MEMORIES. "It put the decline of our fighting powers beyond all doubt." This map shows the freeing of Amiens with the recapture of the city's outer defence line on 8 August 1918, but the important factor was German demoralization. Mass surrenders took place, often to individual Allied soldiers and tanks.*

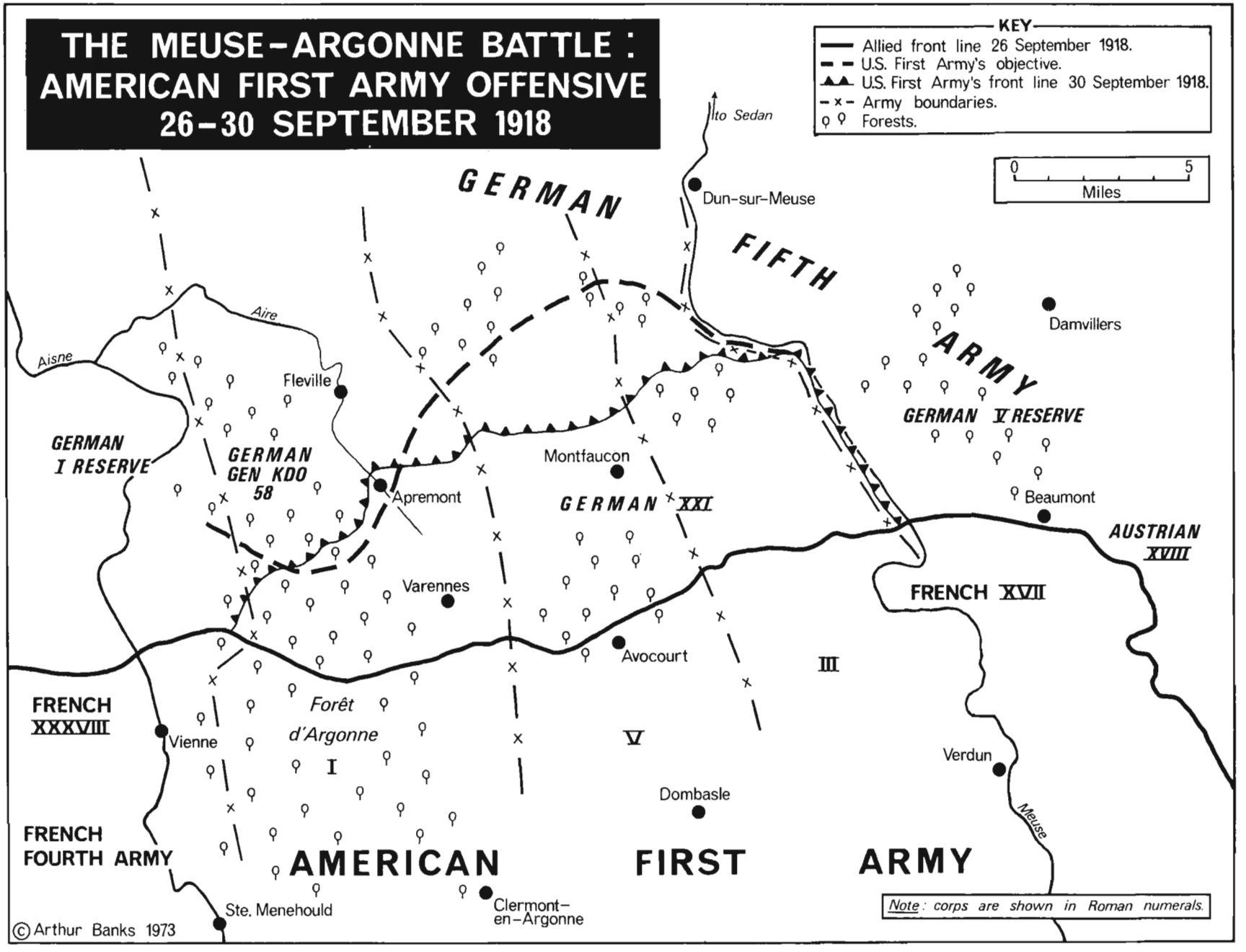
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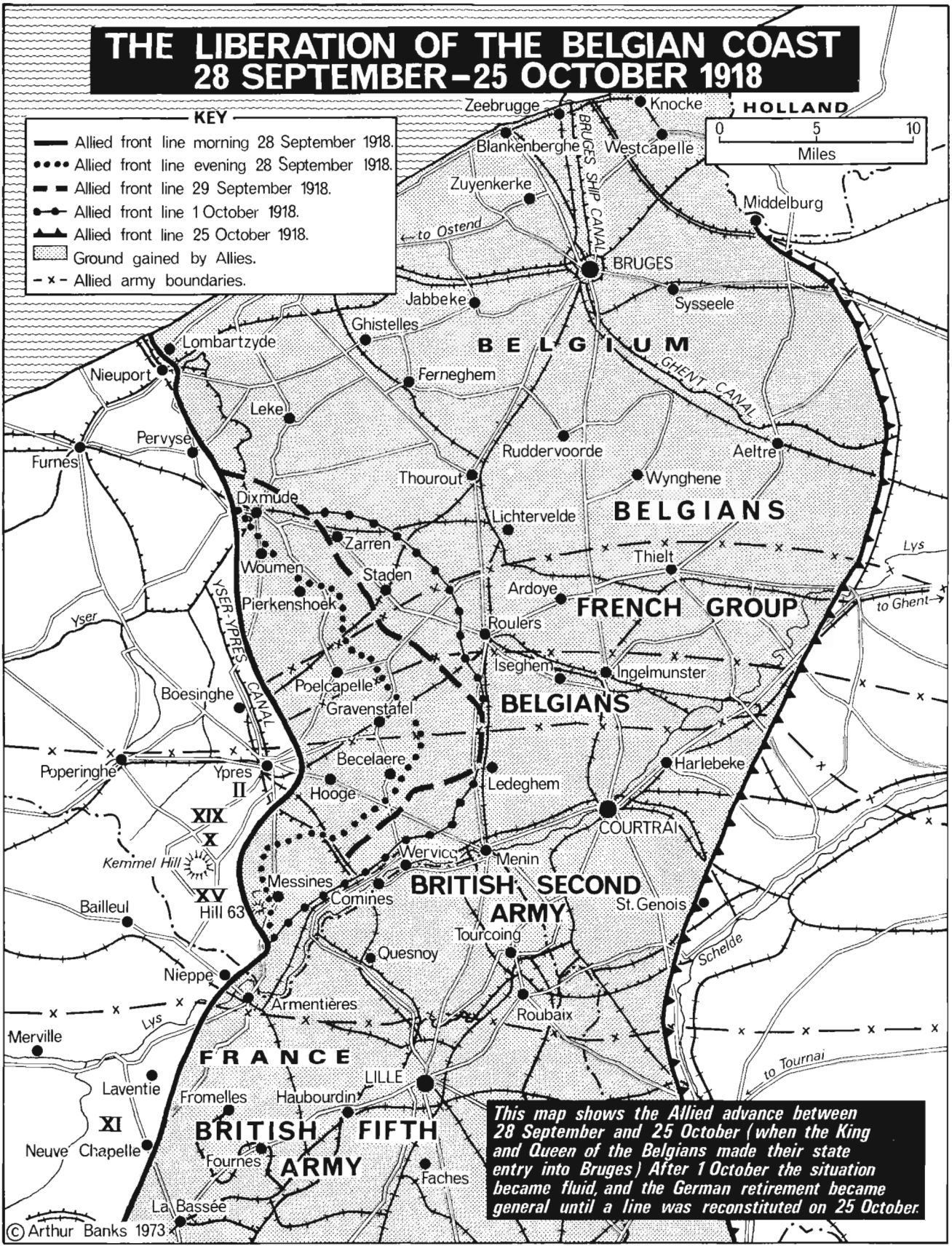

THE CREATION OF THE GERMAN SALIENT AT ST. MIHIEL SEPTEMBER 1914
KEY
German front line on :
19 September.
20 September.
21 September.
25 September.
GERMAN ARMY DETACHMENT STRANTZ
V CORPS
9 BDE.
10 BDE.
III BAVARIAN CORPS
6 BAV. BDE.
5 BAV. BDE.
BAV. CAV.
XIV CORPS
29 BDE.
28 BDE.
Fort de Tavannes
VERDUN
Fort d'Haudainville
Fort de Genicourt
Fort de Troyon
Fort des Paroches
Fort du Camp des Romains
Fort de Liouville
Meuse
Moselle
Fresnes
Maizeray
Champion
Les Eparges
Combres
St. Rémy
Hannonville
Avillers
St. Maurice
Billy
Dommartin la Montagne
Dompierre
Hattonville
Hattonchâtel
Vigneulles
Chambley
Charey
Beney
Rembercourt
Pagny
Thiaucourt
Pannes
Nonsard
Norroy
Essey
Regniéville
Fey-en-Haye
PONT-A-MOUSSON
Spada
Chaillon
Buxières
ST. MIHIEL
Ailly
Apremont
St. Baussant
Flirey
Xivray
Bonconville
FRENCH
SECOND
ARMY
0
5
Miles
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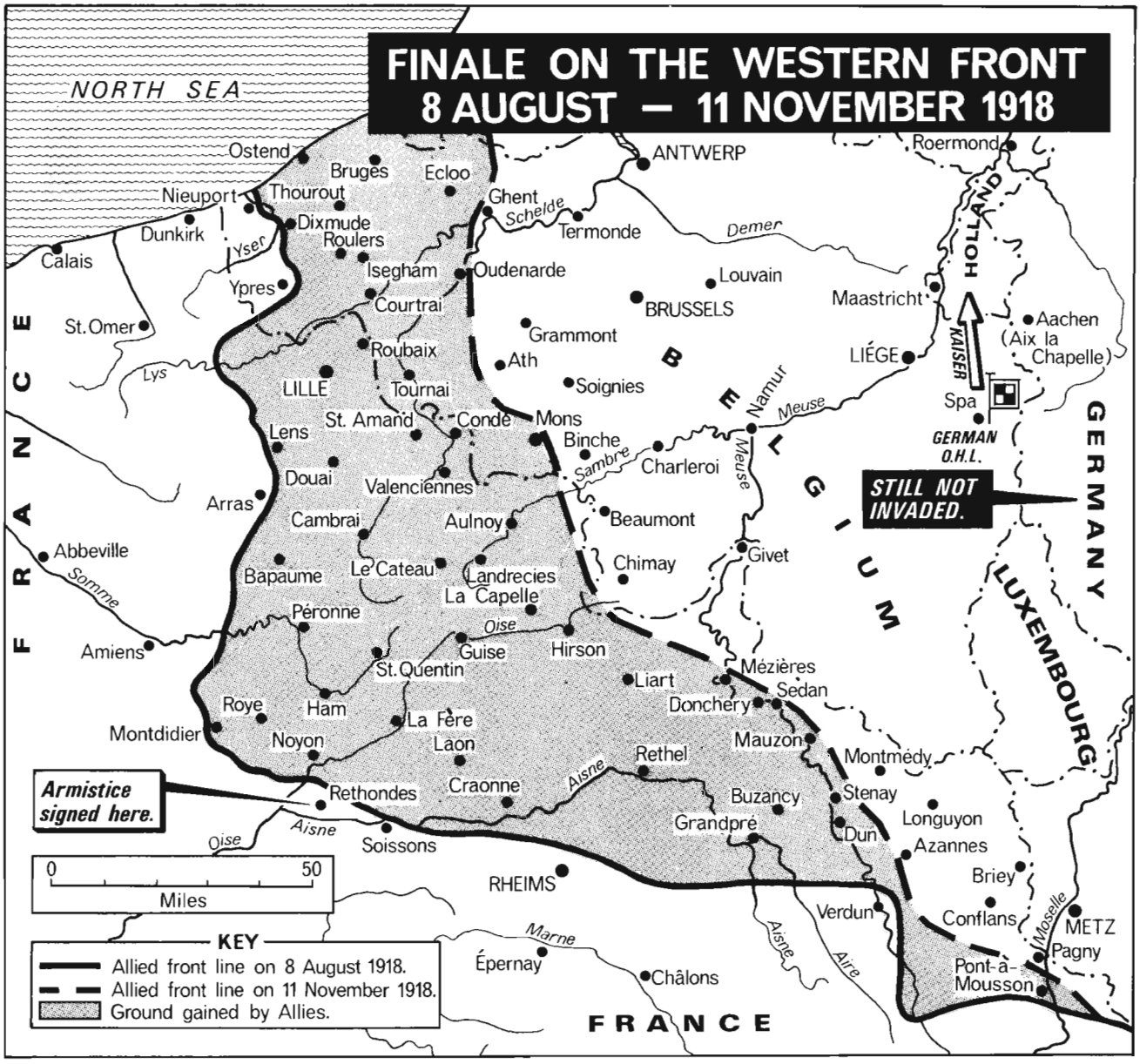

THE ERADICATION OF THE GERMAN SALIENT AT ST. MIHIEL 12–13 SEPTEMBER 1918
The salient had existed since the German advance of 1914. Following a four-hour bombardment by 2,971 guns, the Allied assault was launched by thirteen American and eight French Colonial divisions, aided by the largest array of aeroplanes yet assembled (1,500). 13,250 prisoners and 460 guns were captured in less than thirty hours, and the total would have been much greater but for German intelligence that the attack was imminent. Allied casualties numbered 8,000 approx.
KEY
American advances.
French advances.
German retreat.
Front line 12 September.
Front line 13 September.
RIVAL STRENGTHS
American : 216,000
French : 48,000
German & Austro-Hungarian : 75,000
FRENCH II COLONIAL CORPS (Blondlat)
FRENCH FOURTH ARMY
U.S. V CORPS (Cameron)
GERMAN DETACHMENT 'C' (Fuchs)
U.S. I CORPS (Liggett)
U.S. IV CORPS (Dickman)
(AMERICAN FIRST ARMY) (Pershing)
GERMAN NINETEENTH ARMY
GERMAN ESCAPE ROUTE
AMERICAN H.Q. at Ligny-en-Barrois.
0 5 Miles
Fort de Tavannes
VERDUN
Fort d'Haudainville
Fort de Genicourt
Fort de Troyon
Fort des Paroches
Fort du Camp des Romains
Fort de Liouville
ST. MIHIEL
Meuse
Moselle
to Metz
Fresnes
Maizeray
Champion
Les Eparges
Combres
St. Rémy
Hannonville
Avillers
Dommartin-la-Montagne
St. Maurice
Billy
Dompierre
Hattonchâtel
Hattonville
Vigneulles
Chambley
Charey
Rembercourt
Pagny
Beney
Spada
Chaillon
Nonsard
Pannes
Norroy
Fey-en-Haye
Regniéville
Buxières
Essey
PONT-À-MOUSSON
St. Baussant
Flirey
Xivray
Ailly
Apremont
Bonconville
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THE MEUSE-ARGONNE BATTLE : AMERICAN FIRST ARMY OFFENSIVE 26-30 SEPTEMBER 1918
KEY
Allied front line 26 September 1918.
U.S. First Army's objective.
U.S. First Army's front line 30 September 1918.
Army boundaries.
Forests.
0
5
Miles
to Sedan
Dun-sur-Meuse
GERMAN FIFTH ARMY
Damvillers
GERMAN V RESERVE
Aire
Aisne
Fleville
GERMAN I RESERVE
GERMAN GEN KDO 58
Apremont
Montfaucon
GERMAN XXI
Beaumont
AUSTRIAN XVIII
Varennes
FRENCH XVII
Avocourt
III
FRENCH XXXVIII
Forêt d'Argonne
Vienne
I
V
Verdun
Dombasle
Meuse
FRENCH FOURTH ARMY
AMERICAN FIRST ARMY
Ste. Menehould
Clermont-en-Argonne
Note: corps are shown in Roman numerals.
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THE LIBERATION OF THE BELGIAN COAST
28 SEPTEMBER–25 OCTOBER 1918
KEY
Allied front line morning 28 September 1918.
Allied front line evening 28 September 1918.
Allied front line 29 September 1918.
Allied front line 1 October 1918.
Allied front line 25 October 1918.
Ground gained by Allies.
Allied army boundaries.
HOLLAND
0 5 10
Miles
Zeebrugge
Knocke
Blankenberghe
Westcapelle
BRUGES SHIP CANAL
Zuyenkerke
Middelburg
to Ostend
BRUGES
Jabbeke
Sysseele
Ghistelles
Lombartzyde
BELGIUM
GHENT CANAL
Nieuport
Ferneghem
Leke
Pervyse
Furnes
Ruddervoorde
Aeltre
Thourout
Wynghene
Dixmude
Lichtervelde
BELGIANS
Zarren
Thielt
Lys
Woumen
Staden
Ardoye
Pierkenshoek
FRENCH GROUP
to Ghent
Yser
YSER-YPRES CANAL
Roulers
Iseghem
Ingelmunster
Poelcapelle
Boesinghe
Gravenstafel
BELGIANS
Becelaere
Harlebeke
Poperinghe
Ypres
II
Ledeghem
Hooge
XIX
X
COURTRAI
Kemmel Hill
Wervicq
Menin
Messines
BRITISH SECOND ARMY
Comines
St. Genois
XV
Hill 63
Bailleul
Tourcoing
Schelde
Quesnoy
Nieppe
Armentières
Roubaix
Lys
Merville
FRANCE
to Tournai
LILLE
Laventie
Fromelles
Haubourdin
XI
BRITISH FIFTH ARMY
Neuve Chapelle
Fournes
Faches
La Bassée
This map shows the Allied advance between 28 September and 25 October (when the King and Queen of the Belgians made their state entry into Bruges) After 1 October the situation became fluid, and the German retirement became general until a line was reconstituted on 25 October.
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***Since 18 July, when Foch sent Mangin and Dégoutte to open the Allied attack, the following prisoners had been taken: 188,000 (by the British), 140,000 (by the French), 44,000, (by the Americans), and 14,000 (by the Belgians). Plus some 7,000 guns captured. If German killed and wounded are added, it is plain that the German armies could not continue to fight on effectively.***

***On 10 November, the Kaiser fled to Holland, followed by the Crown Prince. The basic Armistice terms signed at 1100 hours on 11 November were: immediate cessation of hostilities: German evacuation of invaded territory and of Alsace–Lorraine: repatriation of Allied citizens and prisoners of war: surrender of war materials and weapons: evacuation of the Rhine's left bank and bridgeheads: surrender of U-boats: internment of German surface warships: a declaration that the Treaties of Bucharest and Brest–Litovsk were null and void.***

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NOTE: MONS (FROM WHICH THE BRITISH RETREAT HAD BEGUN IN 1914) WAS RETAKEN BY THE CANADIANS A FEW HOURS PRIOR TO THE ARMISTICE.

# THE PERIPHERAL CAMPAIGNS

Throughout the War most military leaders in Britain and France were 'Westerners'; they believed the principal task of their armies was to defeat the enemy in the theatre of operations which the Germans had themselves selected for their main effort. All other campaigns were dangerous 'sideshows', eating up men and munitions; and it was not until the final months of the war that a resolute effort was made to gain victories against Germany's allies in northern Italy, the Balkans, and the Middle East.

In practice these peripheral campaigns fall strategically into three categories. Some were intended, at least originally, as offensive thrusts against the central bloc from new points of the compass: the Italian and Macedonian Fronts, for example. Others were forced on the allies by Turkey's adhesion to the Germano-Austrian side: the need to defend the Suez lifeline by a campaign in Palestine, and to secure Anglo-Persian oil supplies by an offensive up the Shatt-el-Arab. Finally there was the fighting in Africa, and notably in German East Africa, where General von Lettow-Vorbeck waged colonial warfare throughout the four years of the European conflict, eventually surrendering a fortnight after the Armistice in France.

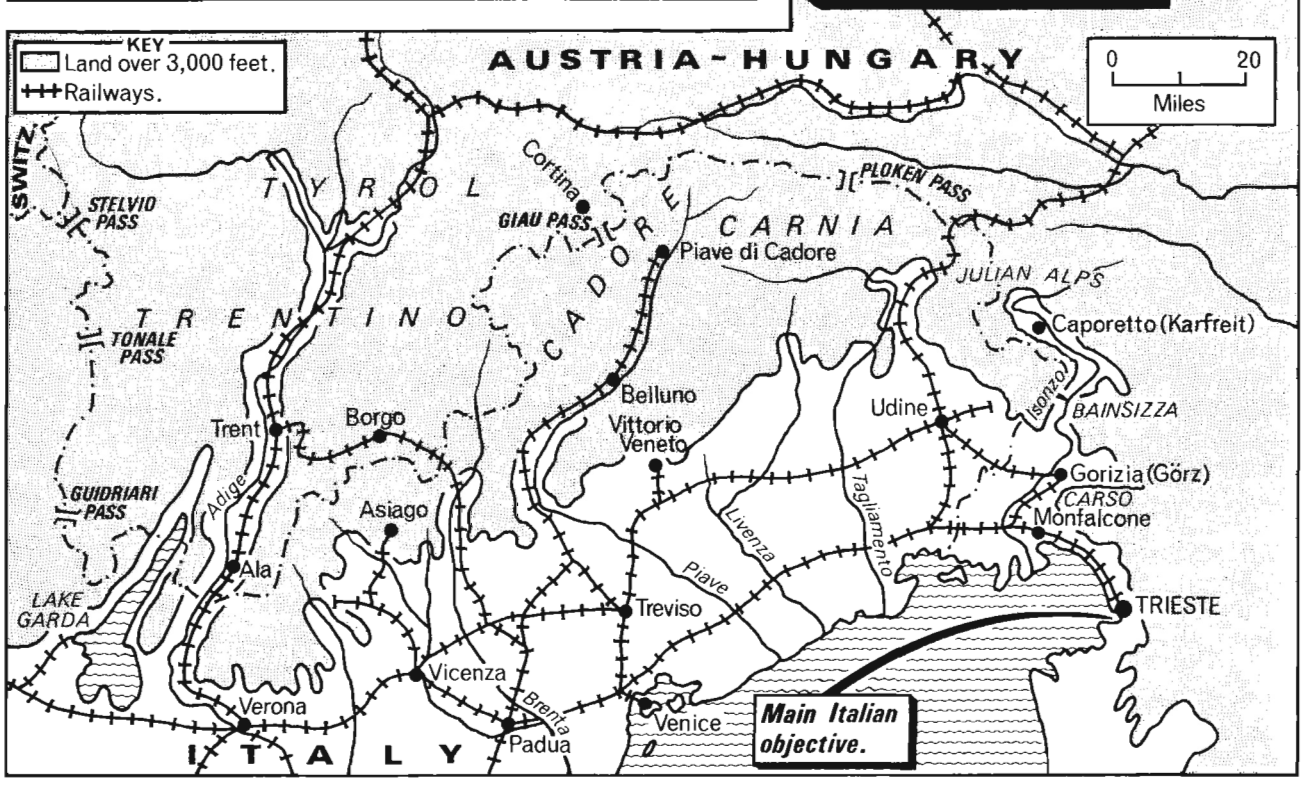
The character of several of these campaigns changed as the war dragged on: thus operations to safeguard oil refineries and counter intrigues in the Middle East developed into a lengthy campaign in Mesopotamia, with the possibility of a strike against the interior of Turkey. Conversely, the Italian Front, where it was hoped in 1915 that Austria-Hungary would drain away her last resources, became a burden for Italy's allies, although the Italian troops fought at first with fiercely whipped-up patriotic courage. They suffered from inadequate supplies of munitions and artillery, from poor training, and from the assumption that frontal assaults were the sole method of achieving victory. The Italians sustained 600,000 casualties in eleven offensives along the river Isonzo from mid-June 1915 to mid-September 1917; and after all this terrible fighting, they succeeded in advancing the front line only seven miles. The twelfth Isonzo battle, the combined German and Austrian offensive at Caporetto in October 1917, pushed the Italians back fifty miles to the river Piave. Eventually, on the first anniversary of Caporetto, the Italians launched an attack on the Austrian positions which cost them 25,000 casualties in sixty hours of grim combat, before the Austrians lost their headquarters at Vittorio Veneto and sued for peace.

The Salonika Front, originating with the Austro–German–Bulgarian offensive against Serbia (page 160) was for long quiescent, although joint operations by Serbs, Italians, Russians and French liberated Serbian Monastir in November 1916 and the British were heavily engaged with the Bulgarians around Lake Doiran and the River Struma in the spring of 1917. Disease, especially malaria, caused the heaviest casualties in Macedonia. The final offensive of 1918 involved an initial assault by the French and the Serbs on a formless ridge known as the Dobropolje, more than 7,000 feet above sea-level. Subsequently Franchet d'Espèrey's army made the swiftest long advance of the war, sweeping up to the Danube and the plains of Hungary, and preparing to march on Berlin by way of Budapest and Dresden.

In Palestine General Allenby, with elaborate deception and imaginative use of cavalry pushed the Turks (and the German 'Asia Corps') rapidly northwards into the Lebanon and Syria in the autumn of 1918. His advanced cavalry reached Aleppo before Turkish delegates concluded an armistice at Mudros on 30 October, with the commander-in-chief of the British Mediterranean Fleet. Both Allenby in Palestine and Franchet d'Espèrey in Salonika had shown the need for unconventional commanders filled with offensive spirit in the fringe theatres of war. So, indeed, did Lettow-Vorbeck in East Africa.

# THE ITALIAN FRONT 1915–1918

## ① The Battleground




## ② The Opposing Forces (Land and Air)

NOTE: GERMANY AND ITALY WERE NOT AT WAR UNTIL 29 AUGUST 1916.

**ON 23 MAY 1915**

**AUSTRIA-HUNGARY** (100,000 troops) — ARMY GROUP COMMANDER: Archduke Eugen

**IN RESERVE** → 20 divisions (Sava area alone) in the event of an Italian breakthrough.

**IN SUPPORT** → 35 INFANTRY BATTALIONS, 30 ARTILLERY BATTERIES } plus Cavalry Squadrons

**FRONT LINE STRENGTH** → 127 INFANTRY BATTALIONS, 57 ARTILLERY BATTERIES }

STELVIO PASS — 420 MILES — ADRIATIC SEA

| TRENTINO (TYROL) FRONT | CARNIA FRONT | ISONZO (JULIAN) FRONT |
|---|---|---|

**FRONT LINE STRENGTH** → 195 INFANTRY BATTALIONS, 151 ARTILLERY BATTERIES }

**IN SUPPORT** → 45 INFANTRY BATTALIONS, 24 ARTILLERY BATTERIES } plus Cavalry Squadrons

**IN RESERVE** → 101 INFANTRY BATTALIONS, 87 ARTILLERY BATTERIES }

(875,000 troops) **ITALY** — CHIEF OF THE GENERAL STAFF: General Cadorna

**BY 15 JUNE 1915**

| | ITALY | AUSTRIA-HUNGARY |
|---|---|---|
| INFANTRY BATTALIONS | 415 | 234 |
| ARTILLERY BATTERIES | 326 | 155 |
| CAVALRY SQUADRONS | 116 | 21 |

Note: figures are deceptive.

Austria was stronger in heavy artillery and machine guns and many of her troops were already battle-experienced.

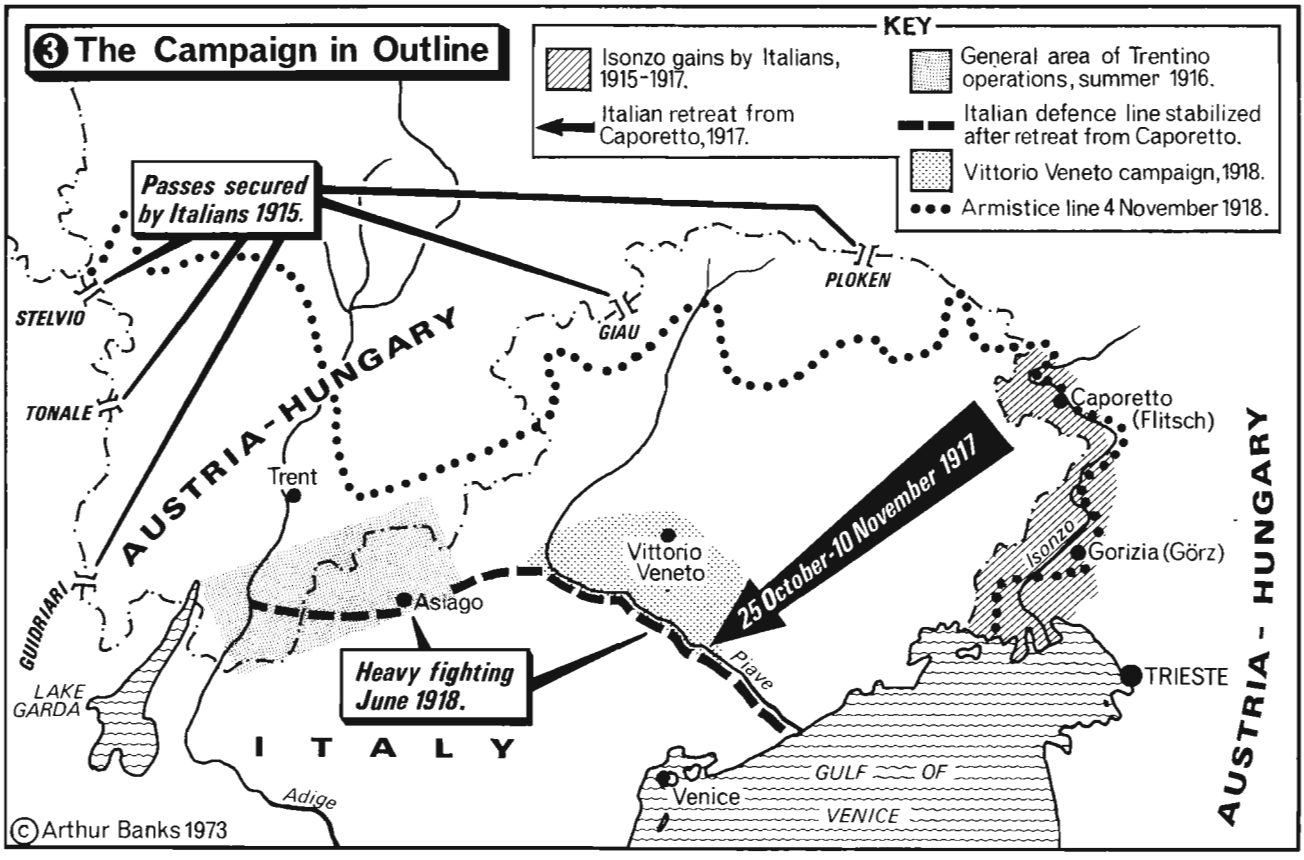
**IN THE AIR**

**ITALY**
77 Aircraft
including seaplanes
7 Airships

**AUSTRIA-HUNGARY**
136 Aircraft
including seaplanes
1 Airship

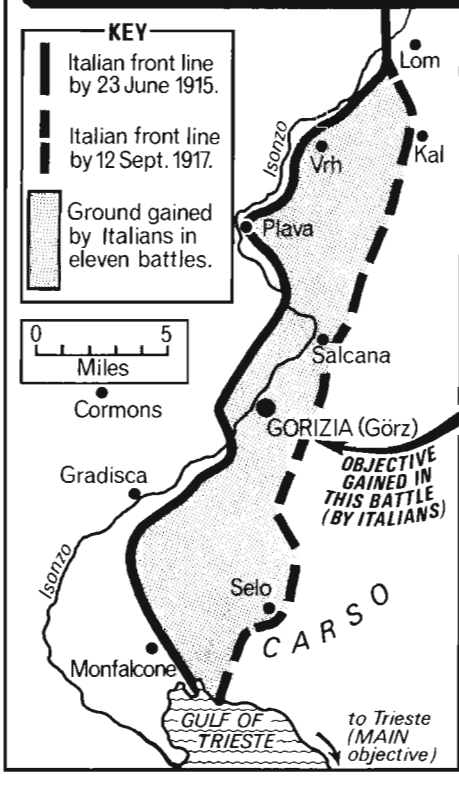
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## ❸ The Campaign in Outline



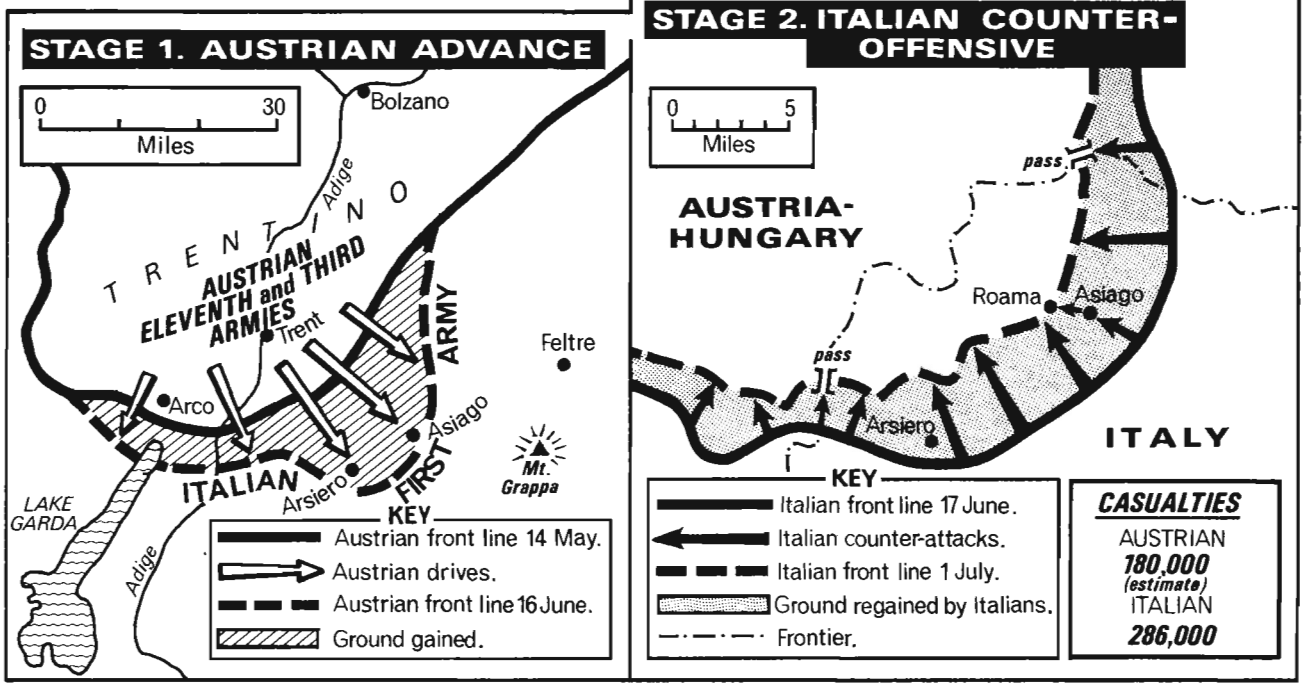

## ❹ The Eleven Isonzo Battles 1915-1917 *

** The Twelfth is generally known as **CAPORETTO***




| BATTLES | DATES | ITALIAN CASUALTIES | AUSTRIAN CASUALTIES | REMARKS |
|---|---|---|---|---|
| 1 | 23 June-7 July | 15,000 | 10,000 | MINOR LAND GAINS BY THE ITALIANS. |
| 2 | 18 July-3 August | 42,000 | 46,600 | |
| 3 | 18 October-4 November | 67,000 | 71,700 | |
| 4 | 10 November-2 December | 49,000 | | |
| 5 | 11-15 March | 2,700 | 2,000 | |
| 6 | 6-17 August | 51,250 | 41,850 | ITALIANS GAIN 45 SQUARE MILES OF LAND, INCLUDING GORIZIA. |
| 7 | 14-17 September | 75,500 | 63,000 | MINOR ITALIAN GAINS EAST AND SOUTH OF GORIZIA. DRAIN ON AUSTRIA STARTING TO SHOW. |
| 8 | 10-12 October | | | |
| 9 | 1-4 November | | | |
| 10 | 12 May-5 June | 132,000 | 52,300 | ITALIAN GAINS EAST OF PLAVA AND MONFALCONE. |
| 11 | 17 August-12 September | 148,000 | 56,000 | AUSTRIA APPEALS TO GERMANY FOR AID. |

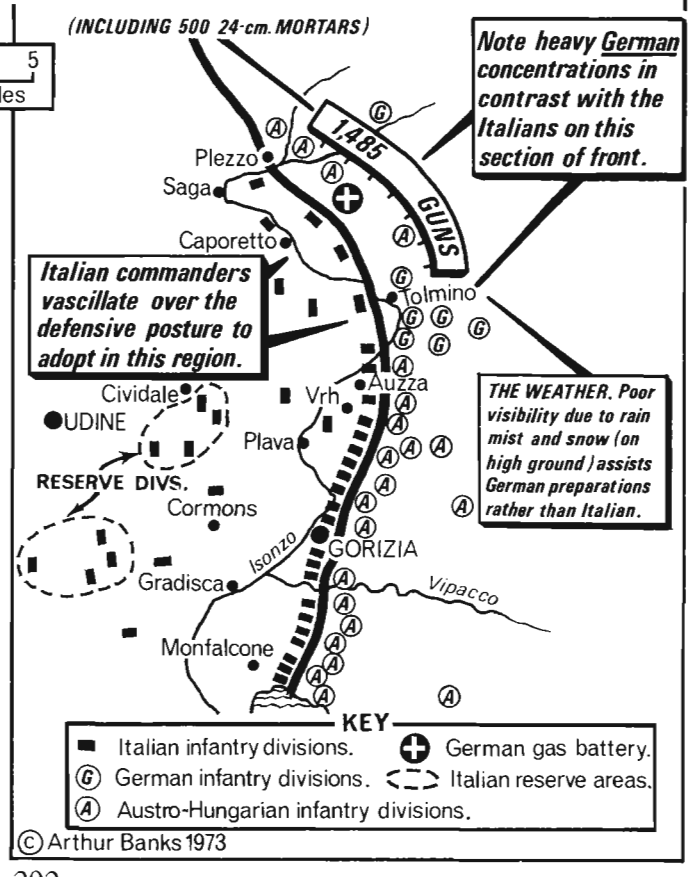
## 5 Austrian Trentino Offensive 1916




## 6 Eve of Caporetto: 23 Oct. 1917

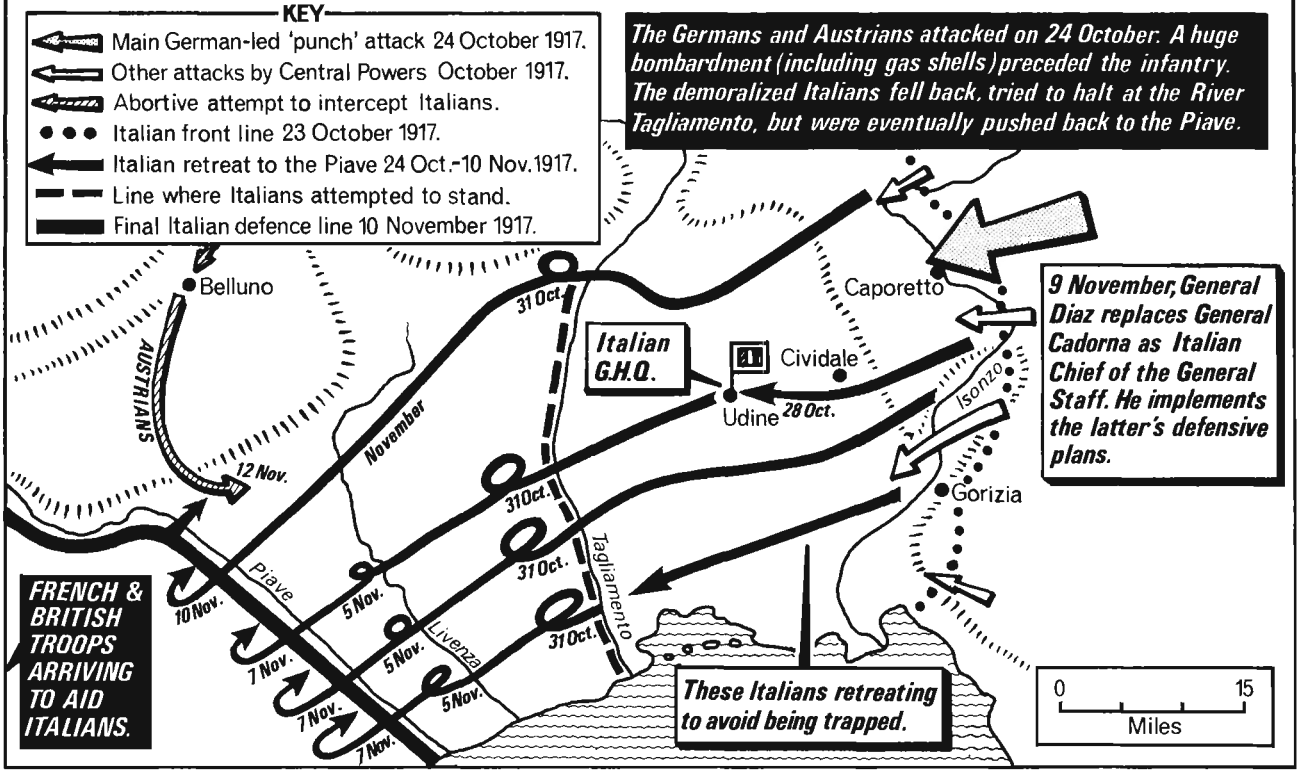



## DIVISIONAL DISPOSITIONS

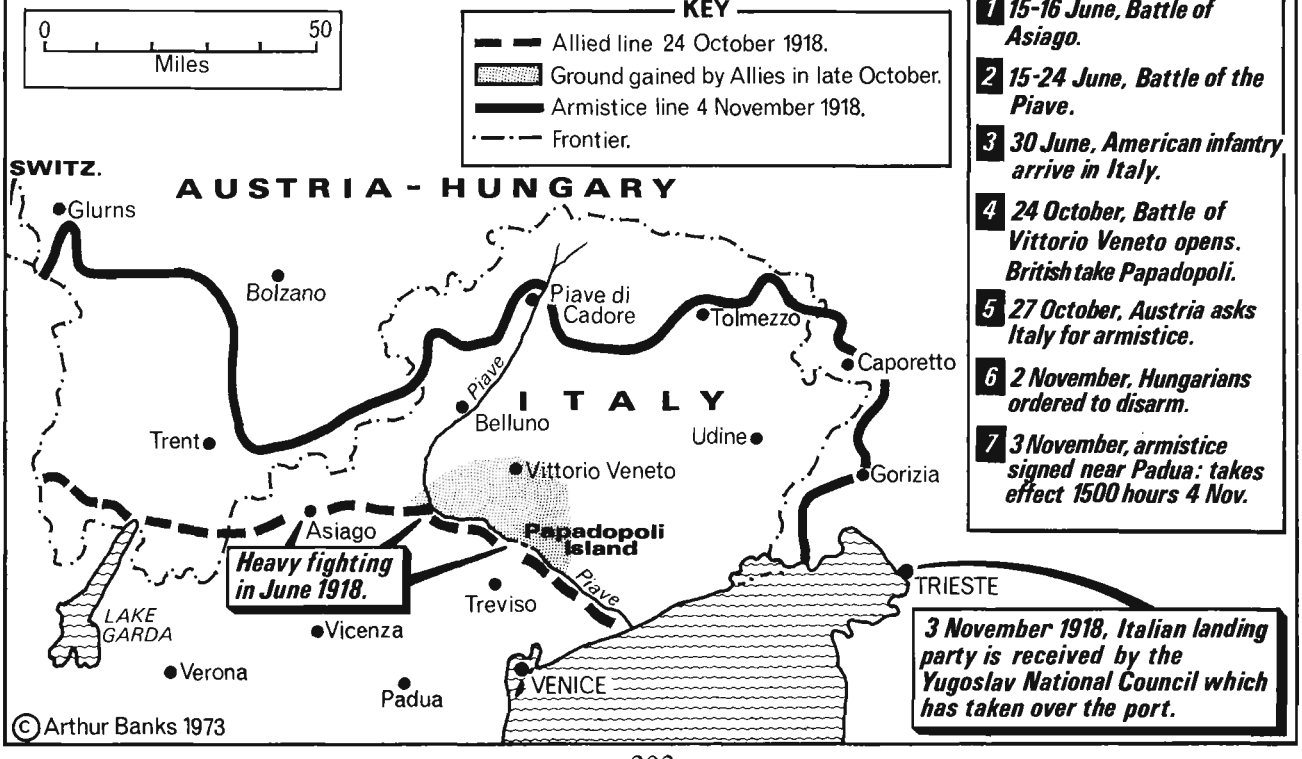



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## ⑦ The Italian Retreat from Caporetto to the River Piave Position 1917




## ⑧ 1918 : Vittorio Veneto: The Armistice

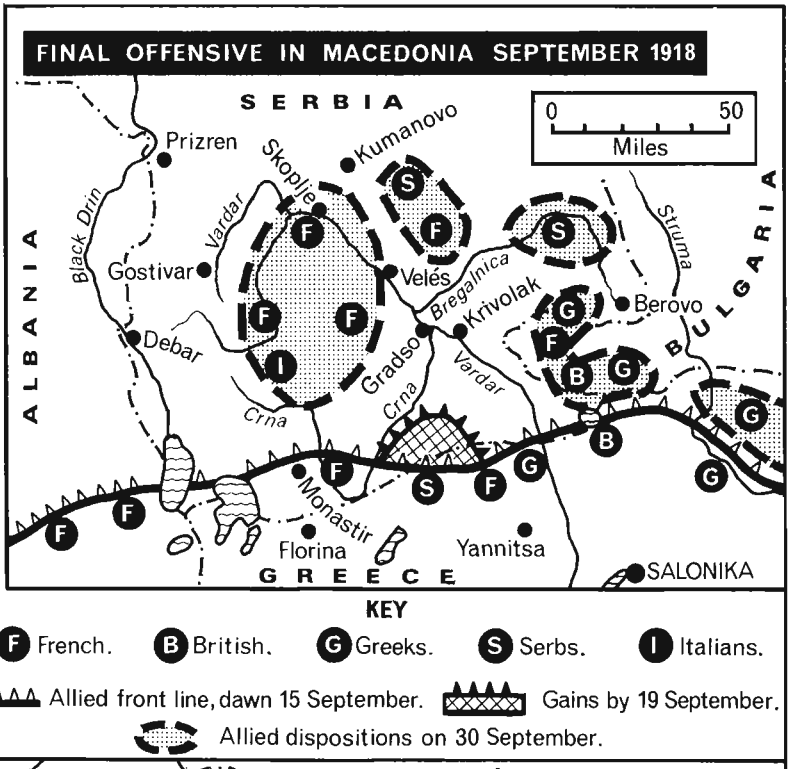



### MAIN EVENTS

1. 15-16 June, Battle of Asiago.
2. 15-24 June, Battle of the Piave.
3. 30 June, American infantry arrive in Italy.
4. 24 October, Battle of Vittorio Veneto opens. British take Papadopoli.
5. 27 October, Austria asks Italy for armistice.
6. 2 November, Hungarians ordered to disarm.
7. 3 November, armistice signed near Padua: takes effect 1500 hours 4 Nov.

# THE SALONIKA FRONT 1915 - 1918

*The Salonika expedition, undertaken by the Allies for both military and political reasons, became a running sore. It did not save Serbia from the Central Powers' attack and occupation in 1915, and the Allies found themselves confined for nearly a whole year within their own concentration camp and unable to break out decisively to the north until September 1918. The force was "guarded" by one-half of the Bulgarian land force plus some German stiffening. Disease (notably malaria) took a heavy toll of the Allied troops: on the political side, Greek intrigues and Allied suspicions served to exacerbate the general situation.*




AUSTRIA-HUNGARY

SERBIA

MONTENEGRO

Lake Scutari

ADRIATIC SEA

ALBANIA

SERBIA

*Front line basically static Dec. 1916 - Sept. 1918.*

L. Ohrid

Monastir

L. Prespa

L. Ostrova

L. Doiran

Fort Rupel

BULGARIA

GREECE

*Serbian troops from here serve at Salonika (1916 onwards).*

SALONIKA

*Limit of the "Bird Cage" (Allied Entrenched Camp).*

BULGARIA

TURKEY

*DARDANELLES AND GALLIPOLI OPERATIONS AGAINST TURKEY IN 1915.*

IMBROS

DARDANELLES

LEMNOS

Mudros

AEGEAN SEA

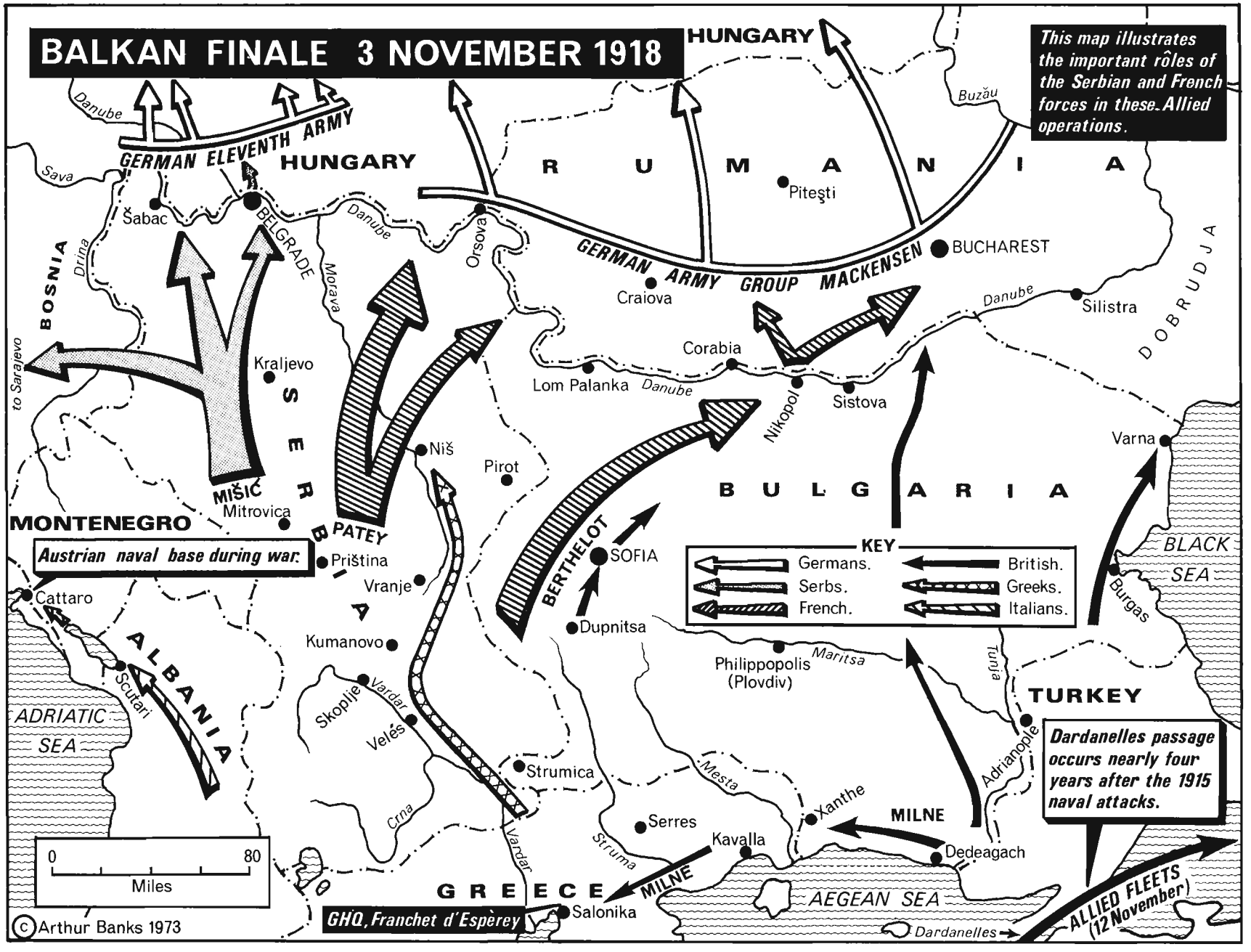
ALLIED SUPPLIES BY SEA

*Neutral zone 16 November 1916.*

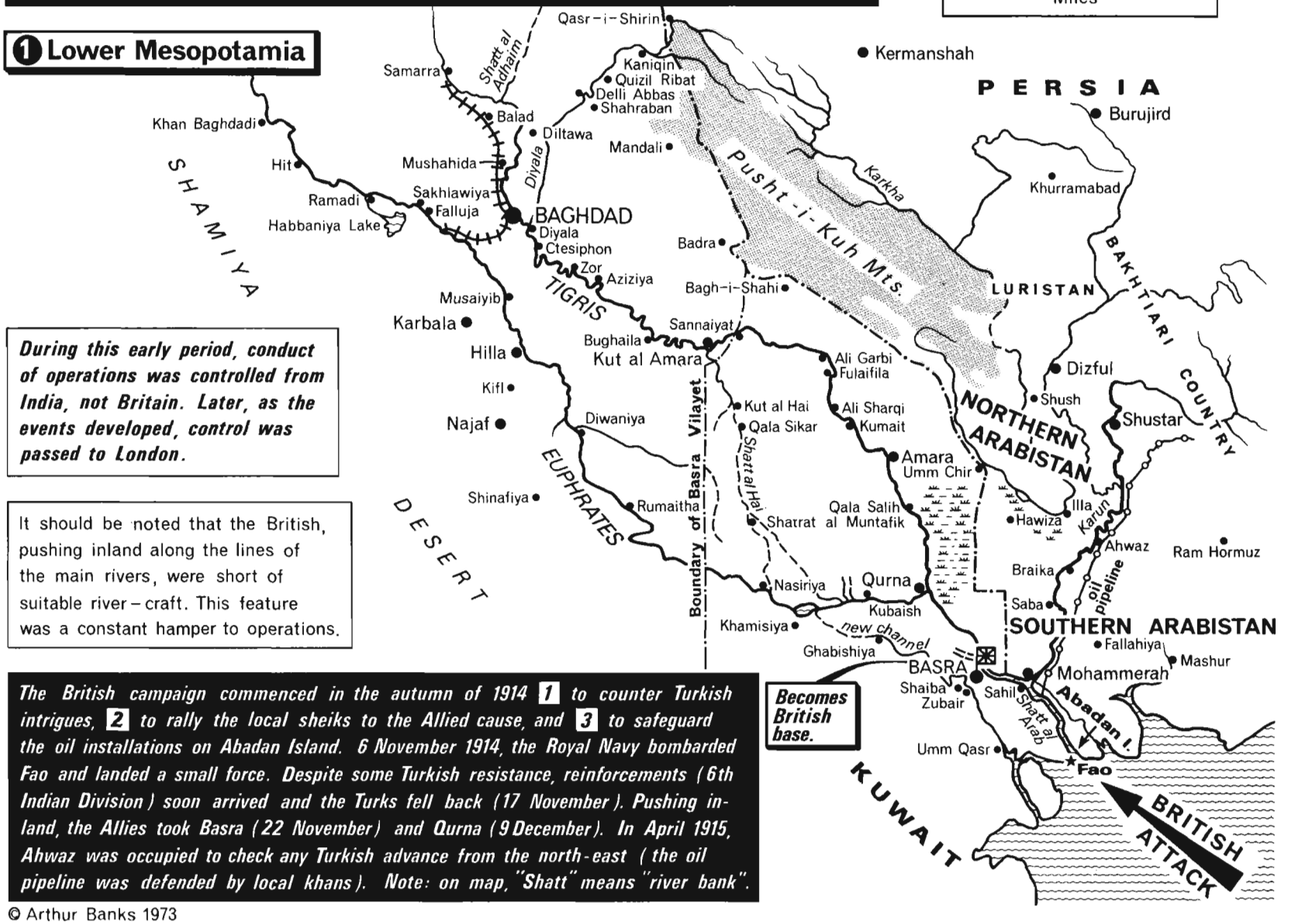
CORFU

0 50 Miles

©Arthur Banks 1973


BALKAN FINALE 3 NOVEMBER 1918
This map illustrates the important rôles of the Serbian and French forces in these Allied operations.
HUNGARY
Danube
GERMAN ELEVENTH ARMY
HUNGARY
Sava
Šabac
BELGRADE
Danube
Buzău
R U M A N I A
Piteşti
Orsova
GERMAN ARMY GROUP MACKENSEN
BUCHAREST
Craiova
Danube
Silistra
DOBRUDJA
BOSNIA
Drina
Morava
to Sarajevo
Kraljevo
S E R B I A
Corabia
Lom Palanka
Danube
Nikopol
Sistova
Niš
Pirot
Varna
MIŠIĆ
Mitrovica
PATEY
MONTENEGRO
B U L G A R I A
Austrian naval base during war.
Priština
BERTHELOT
SOFIA
KEY
Germans.
British.
Serbs.
Greeks.
French.
Italians.
BLACK SEA
Vranje
Cattaro
Dupnitsa
Burgas
Kumanovo
Philippopolis (Plovdiv)
Maritsa
Tunja
TURKEY
ALBANIA
Scutari
Skoplje
Vardar
Veles
ADRIATIC SEA
Strumica
Mesta
Adrianople
Dardanelles passage occurs nearly four years after the 1915 naval attacks.
Crna
Xanthe
MILNE
Serres
Kavalla
Dedeagach
Struma
Vardar
MILNE
GREECE
AEGEAN SEA
ALLIED FLEETS (12 November)
0
80
Miles
GHQ, Franchet d'Espèrey
Salonika
Dardanelles
© Arthur Banks 1973

# THE CAMPAIGN IN MESOPOTAMIA 1914–1918



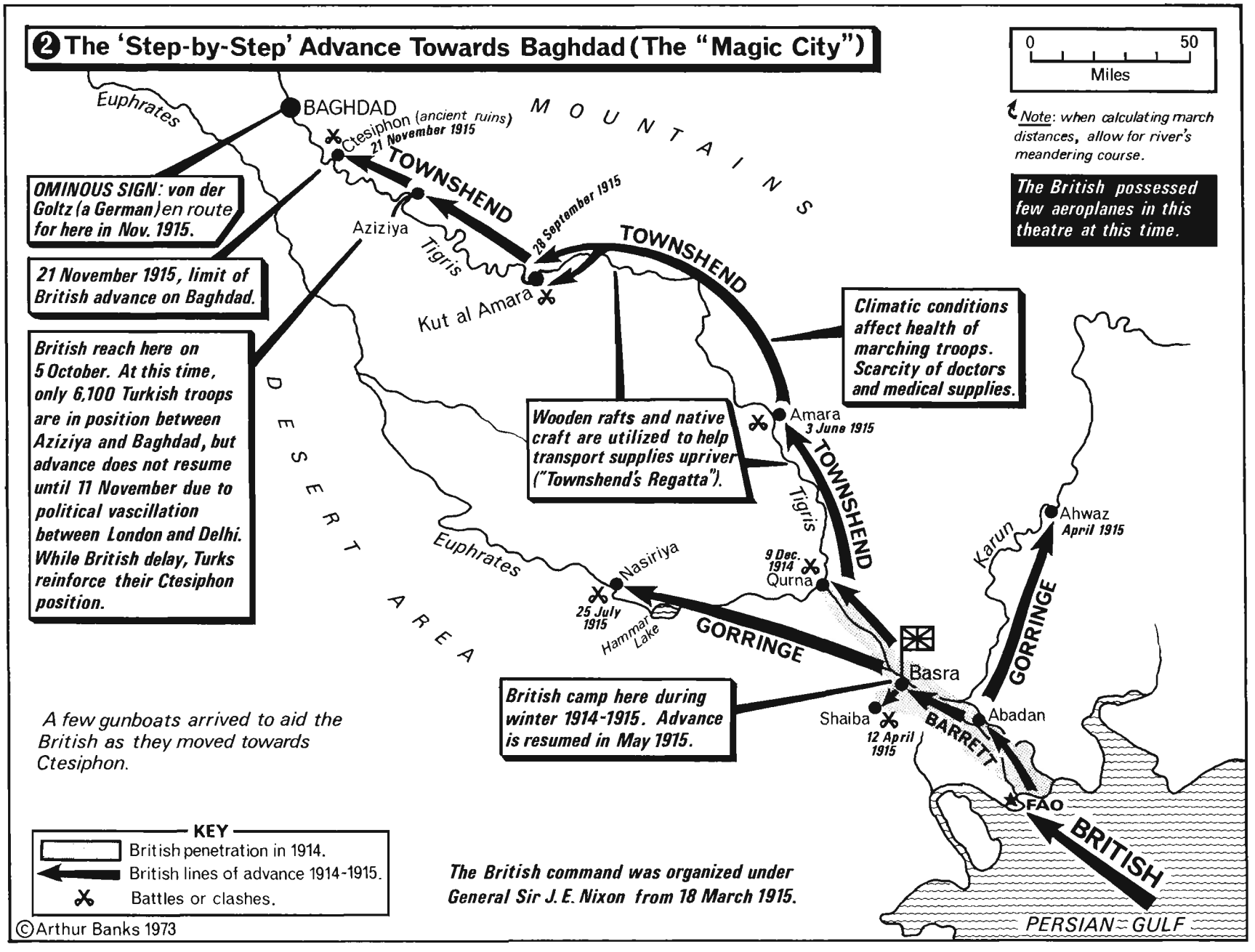

***During this early period, conduct of operations was controlled from India, not Britain. Later, as the events developed, control was passed to London.***

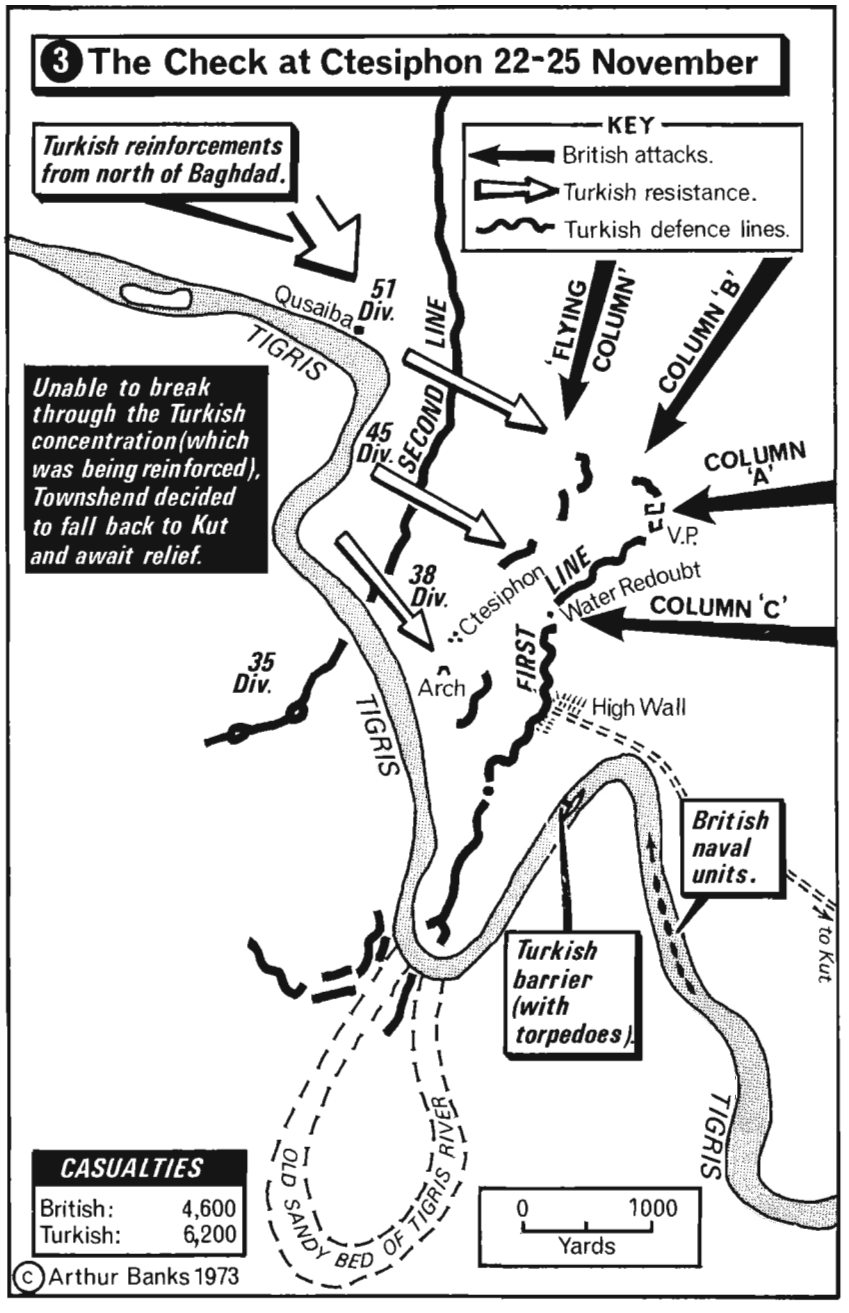
It should be noted that the British, pushing inland along the lines of the main rivers, were short of suitable river-craft. This feature was a constant hamper to operations.

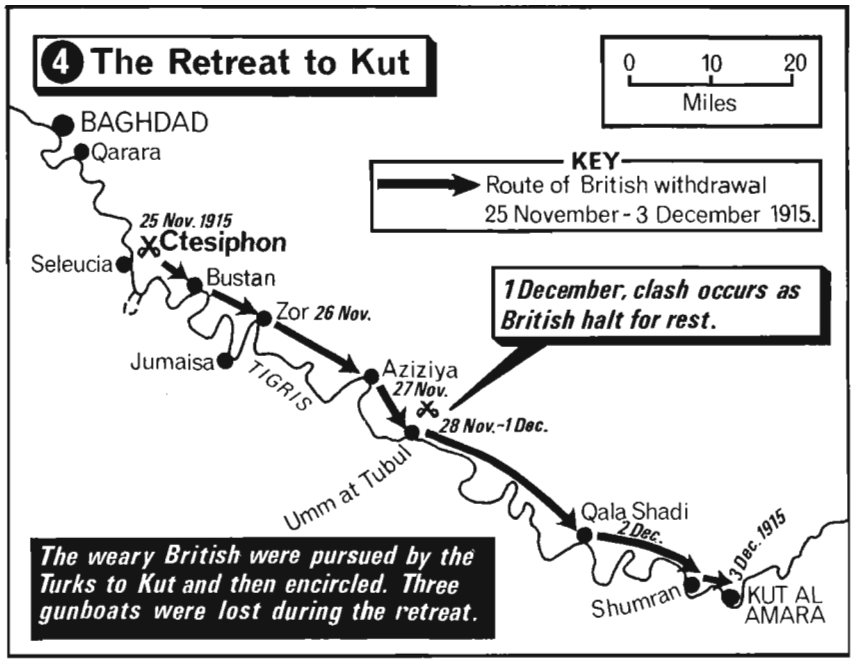
***Becomes British base.***

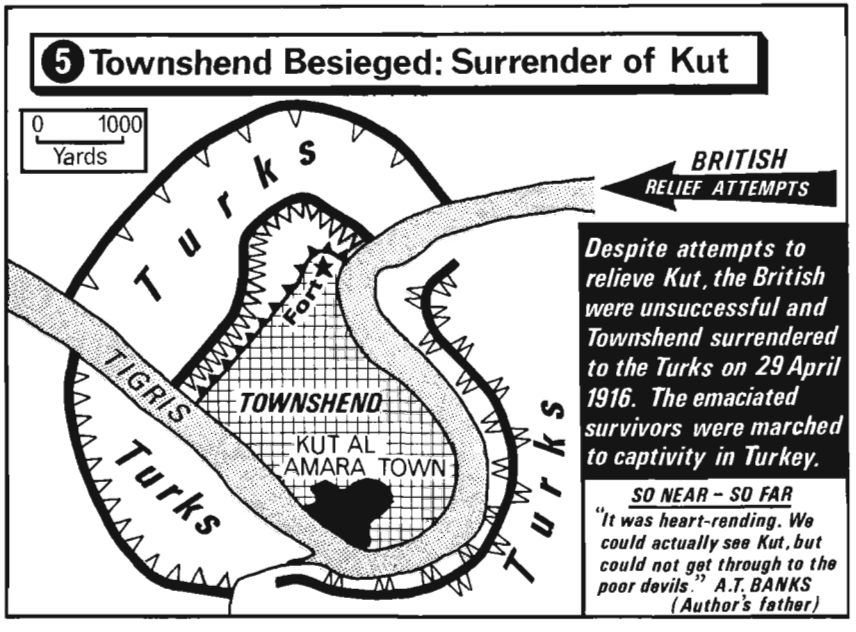
*The British campaign commenced in the autumn of 1914* **1** *to counter Turkish intrigues,* **2** *to rally the local sheiks to the Allied cause, and* **3** *to safeguard the oil installations on Abadan Island. 6 November 1914, the Royal Navy bombarded Fao and landed a small force. Despite some Turkish resistance, reinforcements (6th Indian Division) soon arrived and the Turks fell back (17 November). Pushing inland, the Allies took Basra (22 November) and Qurna (9 December). In April 1915, Ahwaz was occupied to check any Turkish advance from the north-east (the oil pipeline was defended by local khans). Note: on map, "Shatt" means "river bank".*

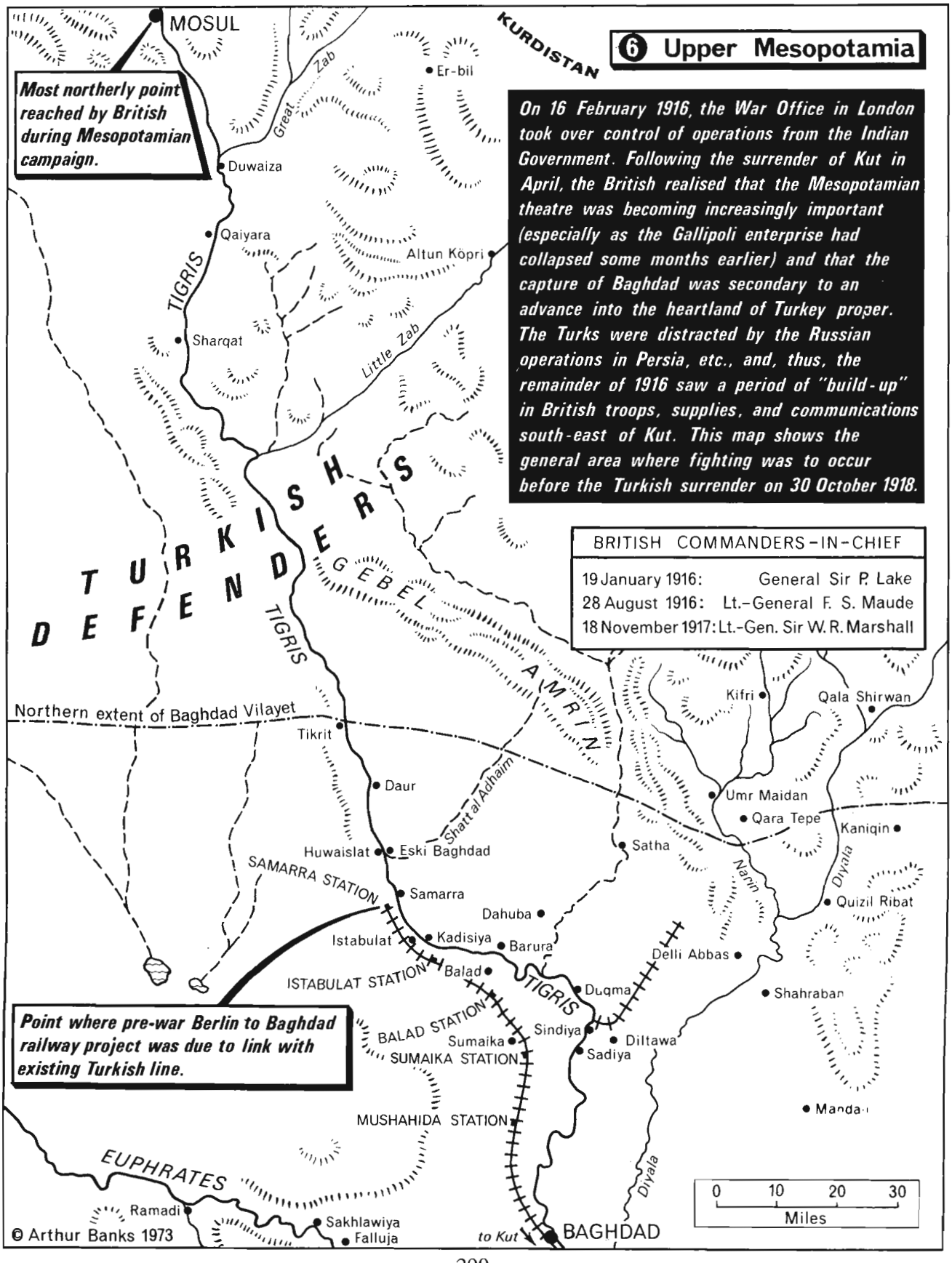
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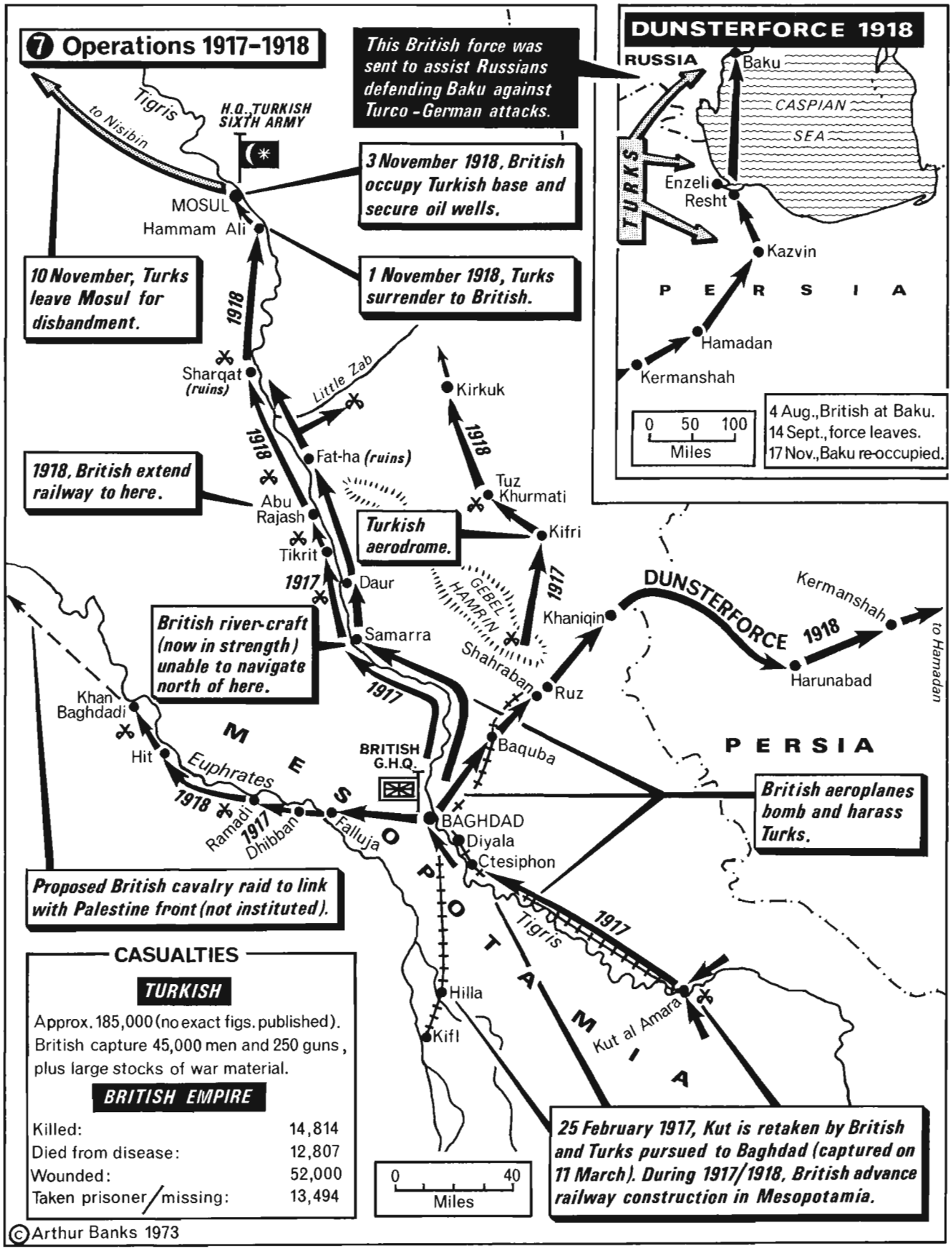

2 The 'Step-by-Step' Advance Towards Baghdad (The "Magic City")
0
50
Miles
Note: when calculating march distances, allow for river's meandering course.
The British possessed few aeroplanes in this theatre at this time.
Euphrates
BAGHDAD
Ctesiphon (ancient ruins)
21 November 1915
TOWNSHEND
MOUNTAINS
OMINOUS SIGN: von der Goltz (a German) en route for here in Nov. 1915.
Aziziya
Tigris
28 September 1915
TOWNSHEND
21 November 1915, limit of British advance on Baghdad.
Kut al Amara
British reach here on 5 October. At this time, only 6,100 Turkish troops are in position between Aziziya and Baghdad, but advance does not resume until 11 November due to political vascillation between London and Delhi. While British delay, Turks reinforce their Ctesiphon position.
Climatic conditions affect health of marching troops. Scarcity of doctors and medical supplies.
Amara
3 June 1915
TOWNSHEND
Wooden rafts and native craft are utilized to help transport supplies upriver ("Townshend's Regatta").
DESERT AREA
Tigris
Euphrates
Nasiriya
25 July 1915
Hammar Lake
9 Dec. 1914
Qurna
Karun
Ahwaz
April 1915
GORRINGE
GORRINGE
Basra
British camp here during winter 1914-1915. Advance is resumed in May 1915.
Shaiba
12 April 1915
BARRETT
Abadan
FAO
BRITISH
PERSIAN GULF
A few gunboats arrived to aid the British as they moved towards Ctesiphon.
KEY
British penetration in 1914.
British lines of advance 1914-1915.
Battles or clashes.
The British command was organized under General Sir J. E. Nixon from 18 March 1915.
©Arthur Banks 1973

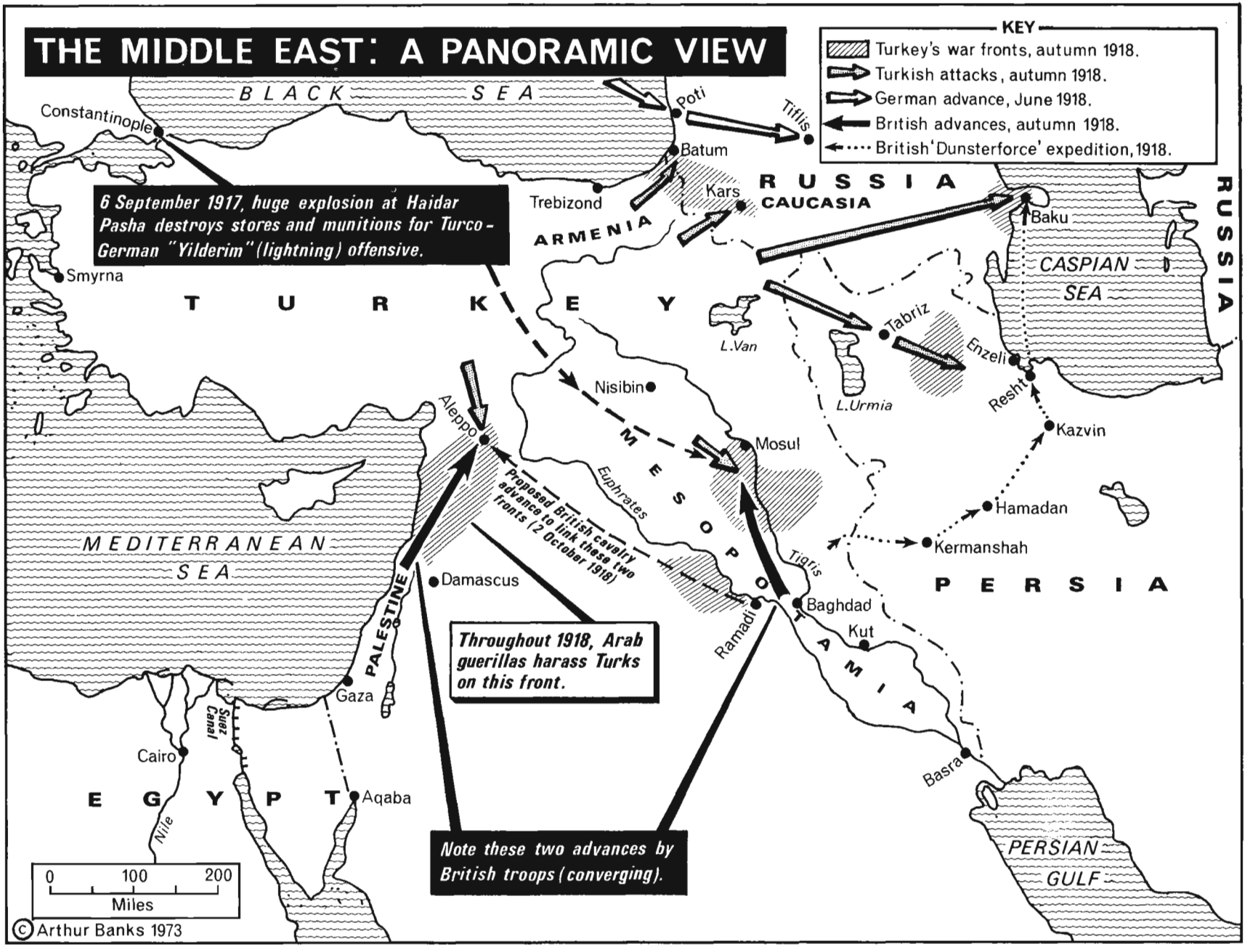

3 The Check at Ctesiphon 22-25 November
KEY
British attacks.
Turkish resistance.
Turkish defence lines.
Turkish reinforcements from north of Baghdad.
Qusaiba
51 Div.
TIGRIS
Unable to break through the Turkish concentration (which was being reinforced), Townshend decided to fall back to Kut and await relief.
45 Div.
SECOND LINE
'FLYING COLUMN'
COLUMN 'B'
COLUMN 'A'
V.P.
38 Div.
Ctesiphon
LINE
Water Redoubt
COLUMN 'C'
35 Div.
Arch
FIRST
High Wall
TIGRIS
British naval units.
Turkish barrier (with torpedoes).
to Kut
OLD SANDY BED OF TIGRIS RIVER
TIGRIS
CASUALTIES
British: 4,600
Turkish: 6,200
0 1000
Yards
© Arthur Banks 1973


4 The Retreat to Kut
0 10 20
Miles
KEY
Route of British withdrawal 25 November - 3 December 1915.
BAGHDAD
Qarara
25 Nov. 1915
Ctesiphon
Seleucia
Bustan
Zor 26 Nov.
1 December, clash occurs as British halt for rest.
Jumaisa
TIGRIS
Aziziya
27 Nov.
28 Nov.-1 Dec.
Umm at Tubul
Qala Shadi
2 Dec.
3 Dec. 1915
Shumran
KUT AL AMARA
The weary British were pursued by the Turks to Kut and then encircled. Three gunboats were lost during the retreat.

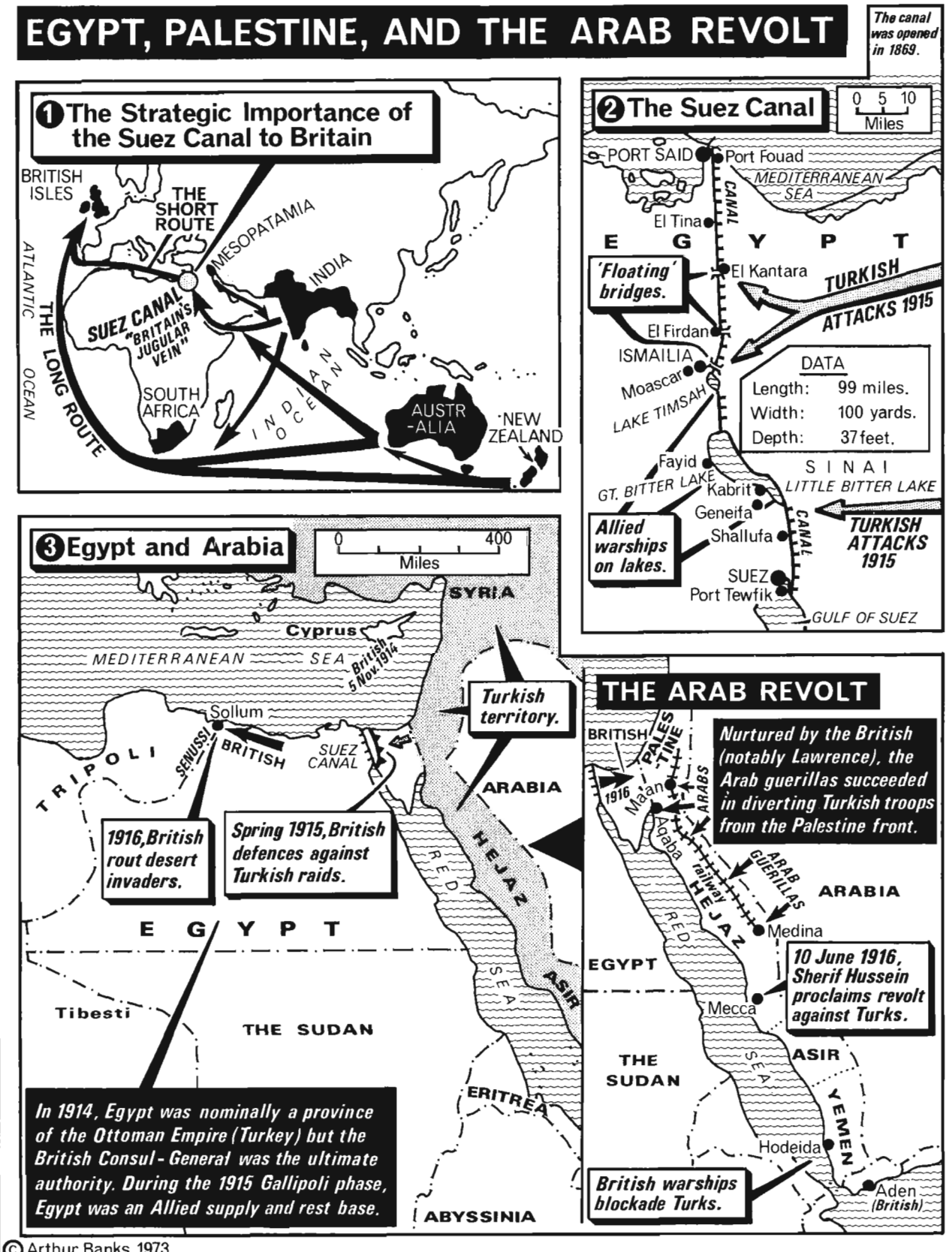

5 Townshend Besieged: Surrender of Kut
0 1000
Yards
BRITISH
RELIEF ATTEMPTS
Turks
FORT
TIGRIS
TOWNSHEND
KUT AL AMARA TOWN
Turks
Turks
Despite attempts to relieve Kut, the British were unsuccessful and Townshend surrendered to the Turks on 29 April 1916. The emaciated survivors were marched to captivity in Turkey.
SO NEAR - SO FAR
"It was heart-rending. We could actually see Kut, but could not get through to the poor devils." A.T. BANKS (Author's father)


6 Upper Mesopotamia
On 16 February 1916, the War Office in London took over control of operations from the Indian Government. Following the surrender of Kut in April, the British realised that the Mesopotamian theatre was becoming increasingly important (especially as the Gallipoli enterprise had collapsed some months earlier) and that the capture of Baghdad was secondary to an advance into the heartland of Turkey proper. The Turks were distracted by the Russian operations in Persia, etc., and, thus, the remainder of 1916 saw a period of "build-up" in British troops, supplies, and communications south-east of Kut. This map shows the general area where fighting was to occur before the Turkish surrender on 30 October 1918.
Most northerly point reached by British during Mesopotamian campaign.
Point where pre-war Berlin to Baghdad railway project was due to link with existing Turkish line.
BRITISH COMMANDERS-IN-CHIEF
19 January 1916: General Sir P. Lake
28 August 1916: Lt.-General F. S. Maude
18 November 1917: Lt.-Gen. Sir W. R. Marshall
MOSUL
KURDISTAN
Er-bil
Great Zab
Duwaiza
Qaiyara
Altun Köpri
TIGRIS
Sharqat
Little Zab
TURKISH DEFENDERS
HAMRIN
GEBEL
TIGRIS
Northern extent of Baghdad Vilayet
Tikrit
Daur
Shatt al Adhaim
Huwaislat
Eski Baghdad
SAMARRA STATION
Samarra
Dahuba
Istabulat
Kadisiya
Barura
ISTABULAT STATION
Balad
BALAD STATION
Sumaika
SUMAIKA STATION
MUSHAHIDA STATION
EUPHRATES
Ramadi
Sakhlawiya
Falluja
to Kut
BAGHDAD
Kifri
Qala Shirwan
Umr Maidan
Qara Tepe
Kaniqin
Satha
Narin
Diyala
Quizil Ribat
Delli Abbas
Shahraban
Duqma
Sindiya
Diltawa
Sadiya
Manda
0 10 20 30
Miles
© Arthur Banks 1973

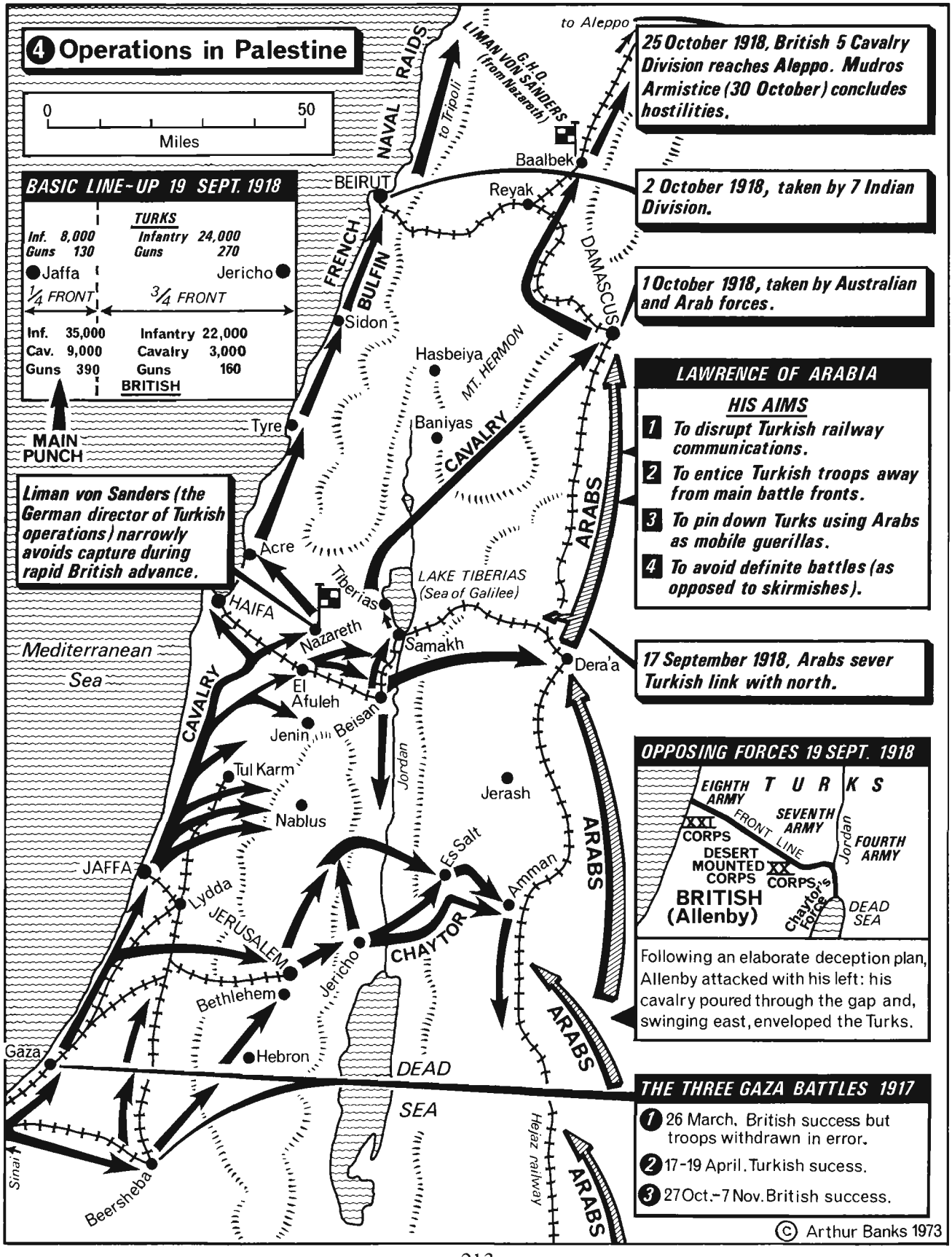

7 Operations 1917–1918
Tigris
to Nisibin
H.Q., TURKISH SIXTH ARMY
MOSUL
Hammam Ali
3 November 1918, British occupy Turkish base and secure oil wells.
1 November 1918, Turks surrender to British.
10 November, Turks leave Mosul for disbandment.
1918
Sharqat (ruins)
Little Zab
Kirkuk
1918
Fat-ha (ruins)
1918, British extend railway to here.
Abu Rajash
Tuz Khurmati
Turkish aerodrome.
Kifri
Tikrit
1917
Daur
GEBEL HAMRIN
1917
Samarra
British river-craft (now in strength) unable to navigate north of here.
Khaniqin
DUNSTERFORCE 1918
Kermanshah
to Hamadan
Harunabad
Shahraban
Ruz
1917
Khan Baghdadi
Hit
Euphrates
1918
Ramadi
1917
Dhibban
BRITISH G.H.Q.
Baquba
PERSIA
British aeroplanes bomb and harass Turks.
Falluja
BAGHDAD
Diyala
Ctesiphon
Proposed British cavalry raid to link with Palestine front (not instituted).
1917
Tigris
Hilla
Kifl
Kut al Amara
25 February 1917, Kut is retaken by British and Turks pursued to Baghdad (captured on 11 March). During 1917/1918, British advance railway construction in Mesopotamia.
0 40
Miles
CASUALTIES
TURKISH
Approx. 185,000 (no exact figs. published).
British capture 45,000 men and 250 guns, plus large stocks of war material.
BRITISH EMPIRE
Killed: 14,814
Died from disease: 12,807
Wounded: 52,000
Taken prisoner/missing: 13,494
DUNSTERFORCE 1918
RUSSIA
Baku
CASPIAN SEA
TURKS
Enzeli
Resht
Kazvin
PERSIA
Hamadan
Kermanshah
0 50 100
Miles
4 Aug., British at Baku.
14 Sept., force leaves.
17 Nov., Baku re-occupied.
This British force was sent to assist Russians defending Baku against Turco-German attacks.
MESOPOTAMIA
©Arthur Banks 1973

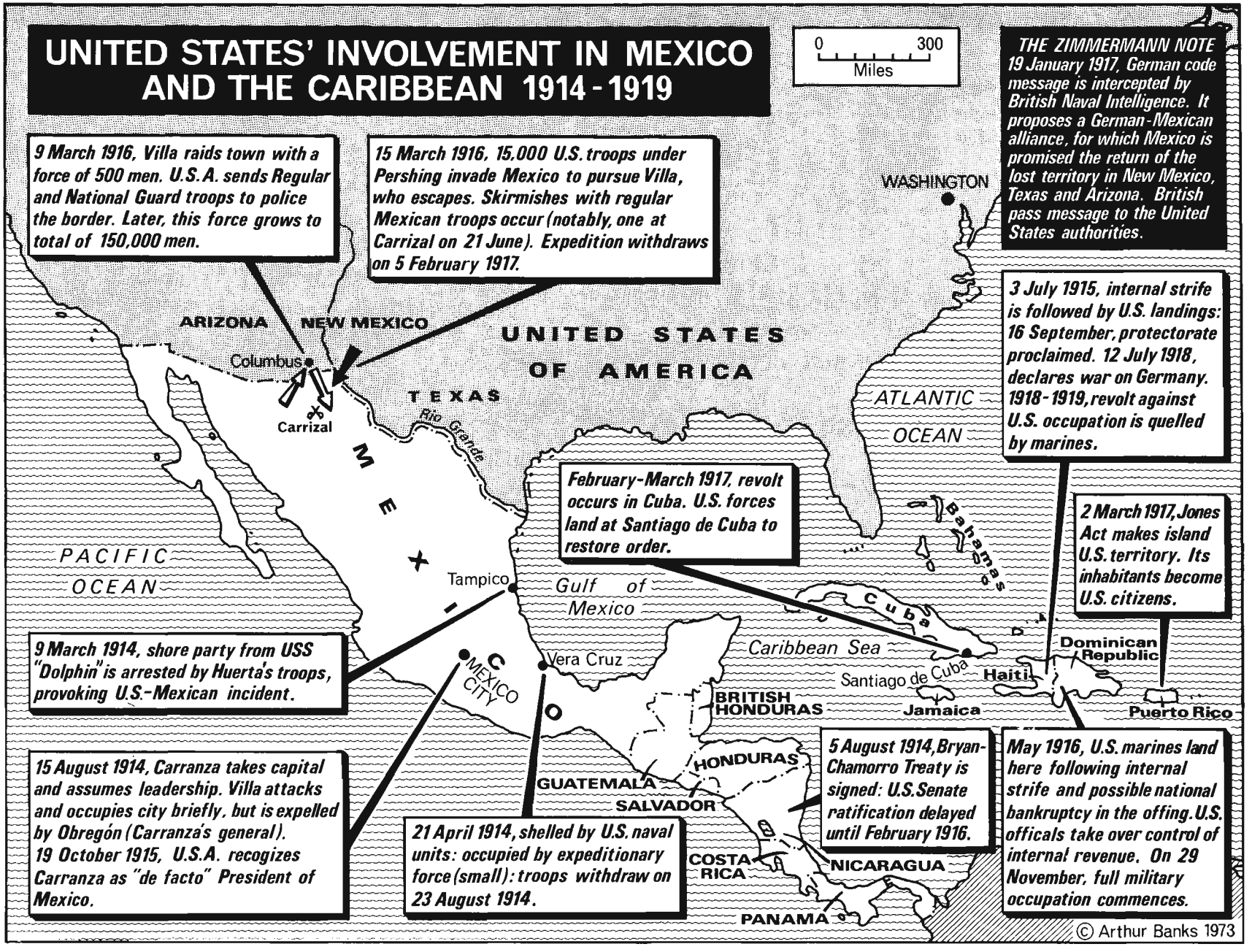

THE MIDDLE EAST: A PANORAMIC VIEW
KEY
Turkey's war fronts, autumn 1918.
Turkish attacks, autumn 1918.
German advance, June 1918.
British advances, autumn 1918.
British 'Dunsterforce' expedition, 1918.
BLACK SEA
Constantinople
Poti
Tiflis
Batum
Trebizond
Kars
RUSSIA
CAUCASIA
ARMENIA
Baku
CASPIAN SEA
RUSSIA
Smyrna
TURKEY
Tabriz
L.Van
Enzeli
Resht
L.Urmia
Kazvin
Nisibin
Aleppo
Mosul
MESOPOTAMIA
Euphrates
Hamadan
Kermanshah
MEDITERRANEAN SEA
Damascus
Tigris
PERSIA
Baghdad
Ramadi
Kut
PALESTINE
Gaza
Suez Canal
Cairo
Basra
EGYPT
Aqaba
Nile
PERSIAN GULF
0 100 200
Miles
6 September 1917, huge explosion at Haidar Pasha destroys stores and munitions for Turco-German "Yilderim" (lightning) offensive.
Proposed British cavalry advance to link these two fronts (2 October 1918)
Throughout 1918, Arab guerillas harass Turks on this front.
Note these two advances by British troops (converging).
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# EGYPT, PALESTINE, AND THE ARAB REVOLT



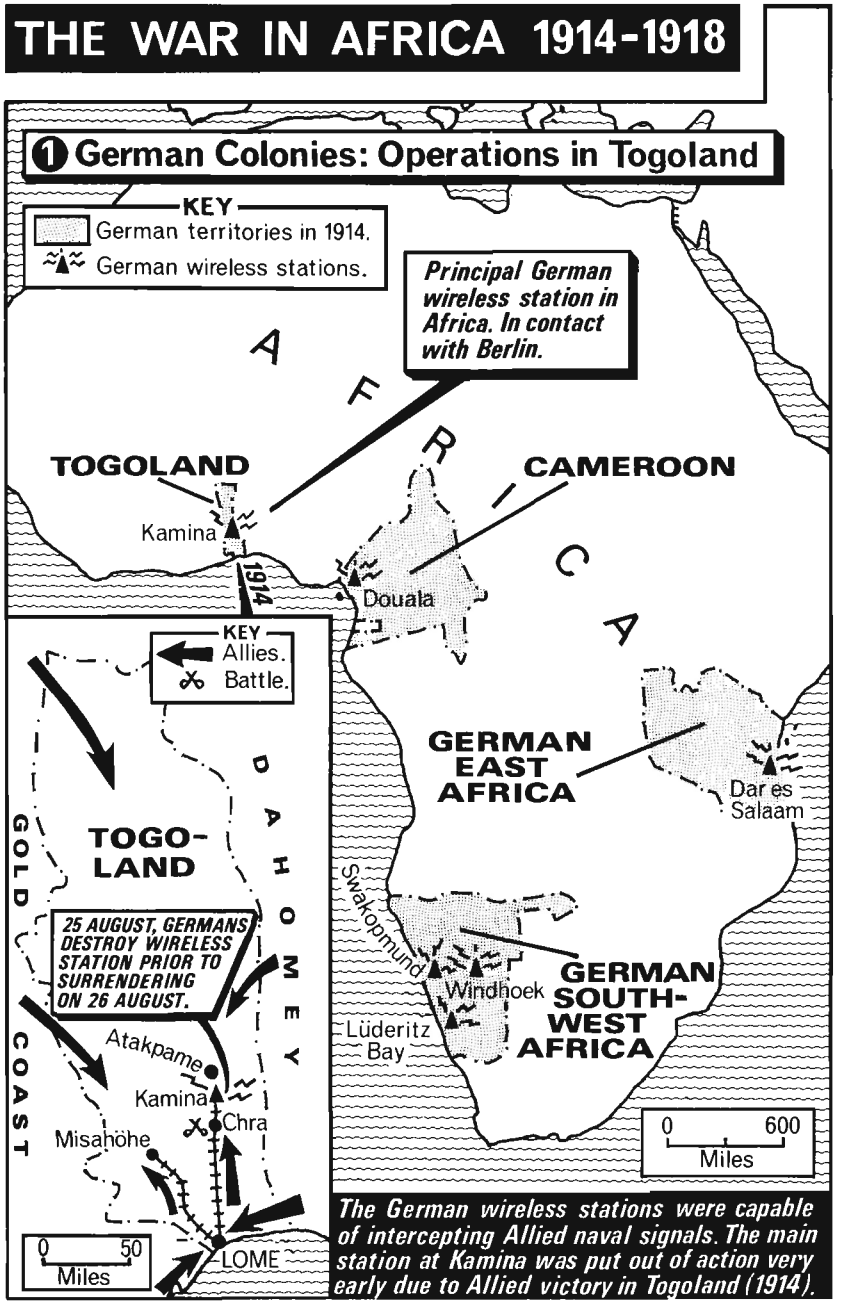

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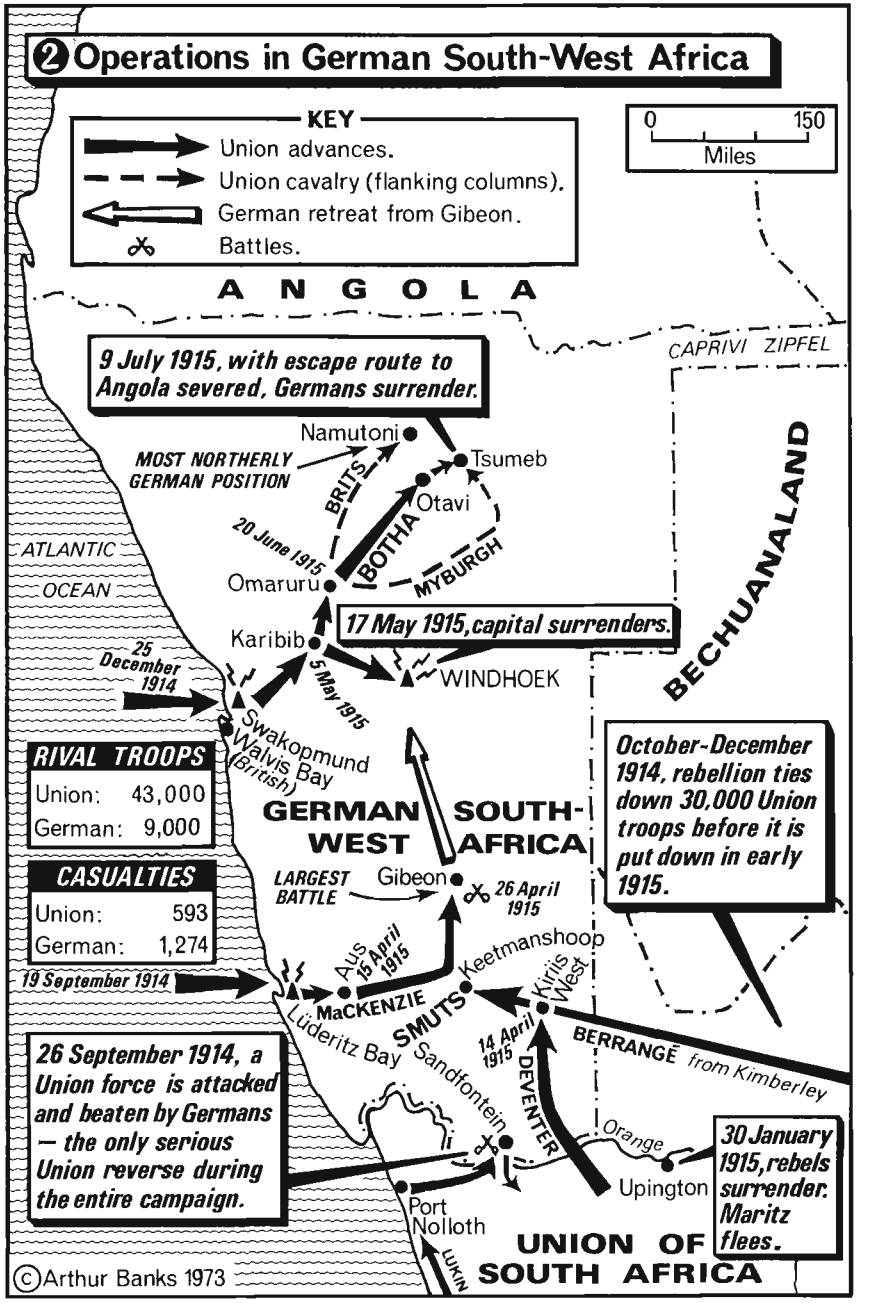

4 Operations in Palestine
0
50
Miles
BASIC LINE-UP 19 SEPT. 1918
TURKS
Inf. 8,000
Guns 130
Infantry 24,000
Guns 270
Jaffa
Jericho
1/4 FRONT
3/4 FRONT
Inf. 35,000
Cav. 9,000
Guns 390
Infantry 22,000
Cavalry 3,000
Guns 160
BRITISH
MAIN PUNCH
Liman von Sanders (the German director of Turkish operations) narrowly avoids capture during rapid British advance.
NAVAL RAIDS
to Tripoli
LIMAN VON SANDERS (from Nazareth)
G.H.Q.
to Aleppo
25 October 1918, British 5 Cavalry Division reaches Aleppo. Mudros Armistice (30 October) concludes hostilities.
Baalbek
2 October 1918, taken by 7 Indian Division.
BEIRUT
Reyak
FRENCH
BULFIN
DAMASCUS
1 October 1918, taken by Australian and Arab forces.
Sidon
Hasbeiya
MT. HERMON
Baniyas
CAVALRY
Tyre
LAWRENCE OF ARABIA
HIS AIMS
1 To disrupt Turkish railway communications.
2 To entice Turkish troops away from main battle fronts.
3 To pin down Turks using Arabs as mobile guerillas.
4 To avoid definite battles (as opposed to skirmishes).
ARABS
Acre
LAKE TIBERIAS
(Sea of Galilee)
Tiberias
HAIFA
Nazareth
Samakh
Dera'a
17 September 1918, Arabs sever Turkish link with north.
Mediterranean Sea
El Afuleh
Beisan
Jenin
CAVALRY
Jordan
OPPOSING FORCES 19 SEPT. 1918
EIGHTH ARMY
T U R K S
SEVENTH ARMY
XXI CORPS
FRONT LINE
Jordan
FOURTH ARMY
DESERT MOUNTED CORPS
XX CORPS
BRITISH (Allenby)
Chaytor's Force
DEAD SEA
Tul Karm
Jerash
Nablus
Es Salt
Amman
JAFFA
Lydda
JERUSALEM
CHAYTOR
Jericho
Bethlehem
Following an elaborate deception plan, Allenby attacked with his left: his cavalry poured through the gap and, swinging east, enveloped the Turks.
Gaza
Hebron
DEAD SEA
THE THREE GAZA BATTLES 1917
1 26 March. British success but troops withdrawn in error.
2 17-19 April. Turkish sucess.
3 27 Oct.-7 Nov. British success.
Sinai
Beersheba
Hejaz railway
© Arthur Banks 1973

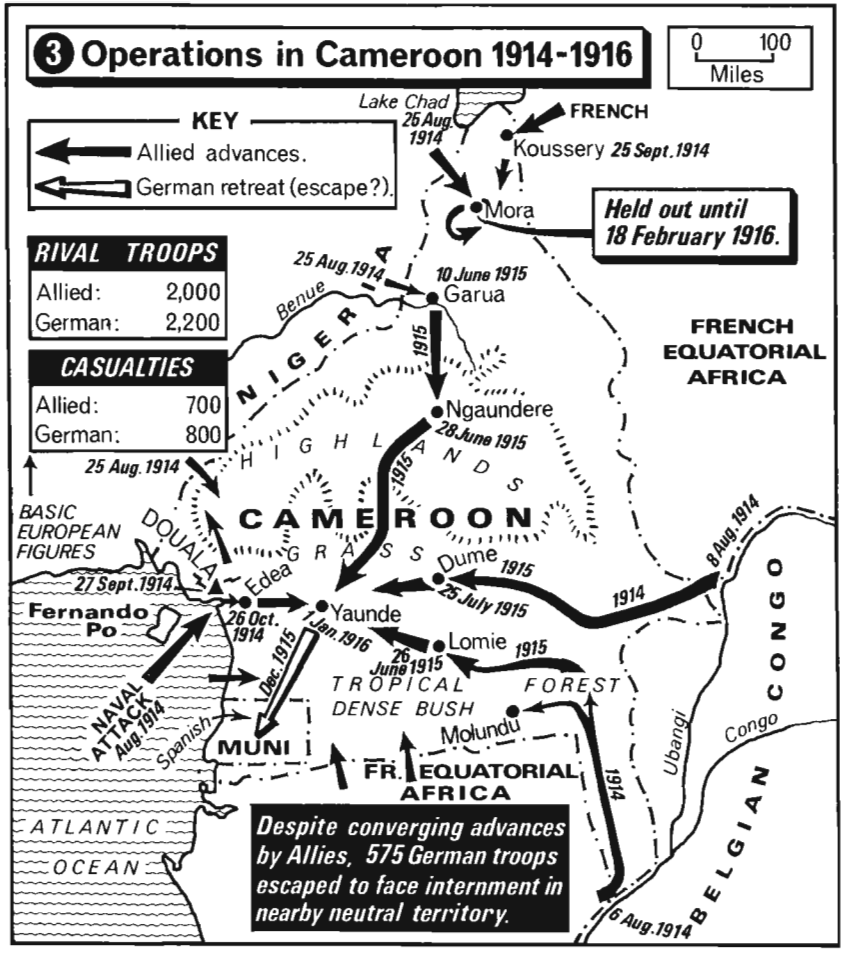

UNITED STATES' INVOLVEMENT IN MEXICO AND THE CARIBBEAN 1914 - 1919
0
300
Miles
9 March 1916, Villa raids town with a force of 500 men. U.S.A. sends Regular and National Guard troops to police the border. Later, this force grows to total of 150,000 men.
15 March 1916, 15,000 U.S. troops under Pershing invade Mexico to pursue Villa, who escapes. Skirmishes with regular Mexican troops occur (notably, one at Carrizal on 21 June). Expedition withdraws on 5 February 1917.
THE ZIMMERMANN NOTE
19 January 1917, German code message is intercepted by British Naval Intelligence. It proposes a German-Mexican alliance, for which Mexico is promised the return of the lost territory in New Mexico, Texas and Arizona. British pass message to the United States authorities.
WASHINGTON
ARIZONA
NEW MEXICO
UNITED STATES OF AMERICA
Columbus
Carrizal
TEXAS
Rio Grande
ATLANTIC OCEAN
3 July 1915, internal strife is followed by U.S. landings: 16 September, protectorate proclaimed. 12 July 1918, declares war on Germany. 1918-1919, revolt against U.S. occupation is quelled by marines.
February-March 1917, revolt occurs in Cuba. U.S. forces land at Santiago de Cuba to restore order.
2 March 1917, Jones Act makes island U.S. territory. Its inhabitants become U.S. citizens.
Bahamas
MEXICO
PACIFIC OCEAN
Tampico
Gulf of Mexico
Cuba
Caribbean Sea
Dominican Republic
Haiti
Santiago de Cuba
Jamaica
Puerto Rico
9 March 1914, shore party from USS "Dolphin" is arrested by Huerta's troops, provoking U.S.-Mexican incident.
MEXICO CITY
Vera Cruz
BRITISH HONDURAS
HONDURAS
GUATEMALA
SALVADOR
5 August 1914, Bryan-Chamorro Treaty is signed: U.S. Senate ratification delayed until February 1916.
May 1916, U.S. marines land here following internal strife and possible national bankruptcy in the offing. U.S. officals take over control of internal revenue. On 29 November, full military occupation commences.
15 August 1914, Carranza takes capital and assumes leadership. Villa attacks and occupies city briefly, but is expelled by Obregón (Carranza's general). 19 October 1915, U.S.A. recogizes Carranza as "de facto" President of Mexico.
21 April 1914, shelled by U.S. naval units: occupied by expeditionary force (small): troops withdraw on 23 August 1914.
COSTA RICA
NICARAGUA
PANAMA
© Arthur Banks 1973

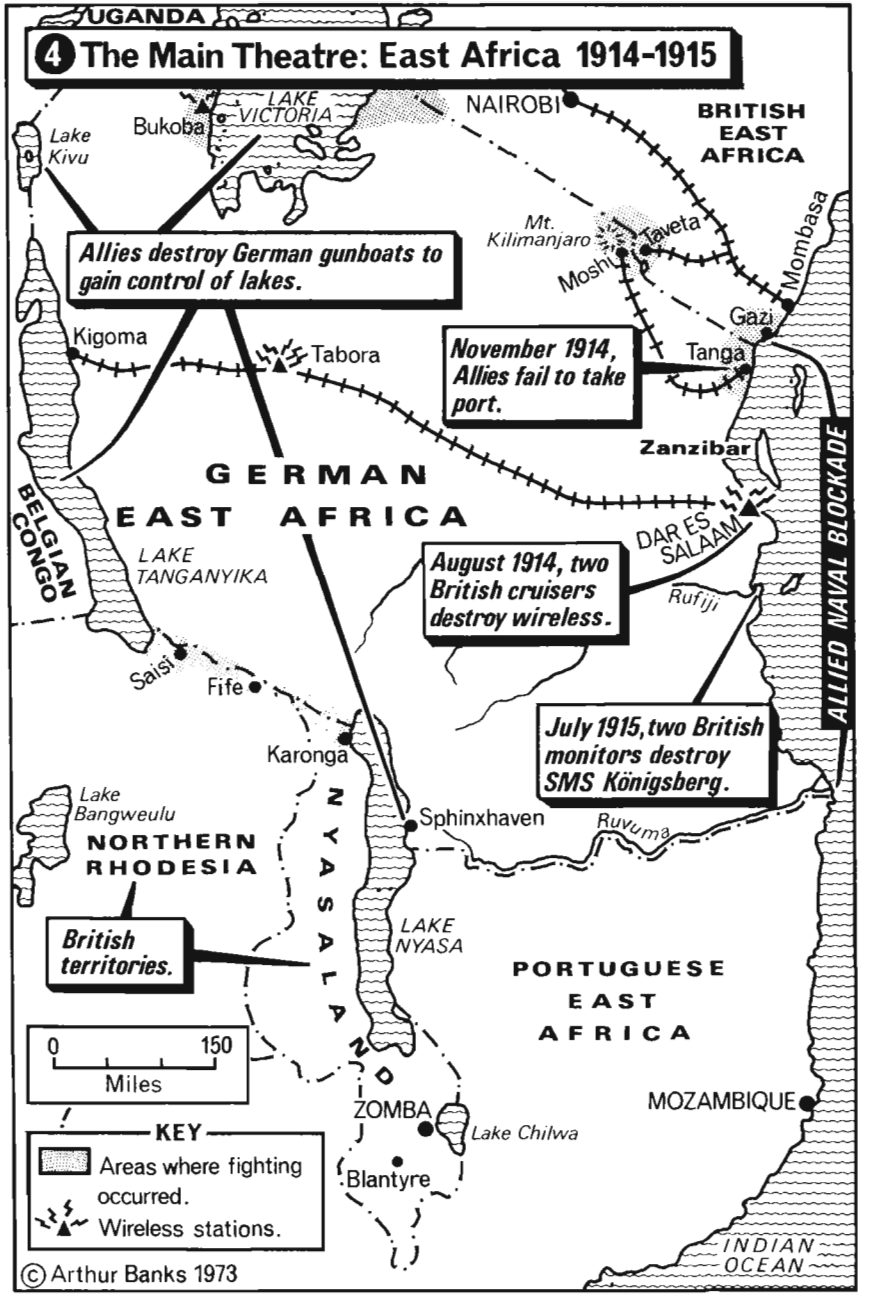

SOUTH AMERICA 1914 - 1918
KEY
At war against the Central Powers 1917 - 1918.
Neutral states.
British territory.
French territory.
Track of SMS 'Dresden' from 8 December 1914 to 14 March 1915.
0
500
Miles
VENEZUELA
DUTCH GUIANA
FRENCH GUIANA
BRITISH GUIANA
Panama Canal
COLOMBIA
ECUADOR
PACIFIC OCEAN
BRAZIL
PERU
BOLIVIA
PARAGUAY
CHILE
ARGENTINA
URUGUAY
ATLANTIC OCEAN
Buenos Aires
Coronel
Juan Fernandez Islands
HUNTED BY BRITISH WARSHIPS
Falkland Islands
April 1917, the 'Paranã' is sunk by a German submarine. 11 April 1917, Brazil severs her relations with Germany and on 1 June 1917, revokes neutrality in favour of the Allies. 26 October 1917, Brazil declares war upon the Central Powers.
1914, revolt led by Benavides ends in the overthrow of President Billinghurst. Pardo is president from 1914 to 1919; breaks off diplomatic relations with Germany in 1917.
14 March 1915, SMS 'Dresden' is destroyed following action with HMS 'Glasgow' and 'Kent'.
1 November 1914, naval battle.
'Dresden' hides in this area from 11 December 1914 to 8 February 1915.
1917, three Argentinian ships are sunk by German submarines. After secret diplomatic exchanges, the German minister is withdrawn from Buenos Aires.
German cruiser SMS 'Dresden' is the sole survivor from the Falkland Islands naval battle.
8 December 1914, naval battle.
Brazil was the sole Latin American state at war with the Central Powers. In 1918, a Brazilian squadron served for nine months with the Allies off the African coast, and on 10 November 1918, Brazilian warships entered the Mediterranean Sea for further duty with the Allies.
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# THE WAR IN AFRICA 1914-1918





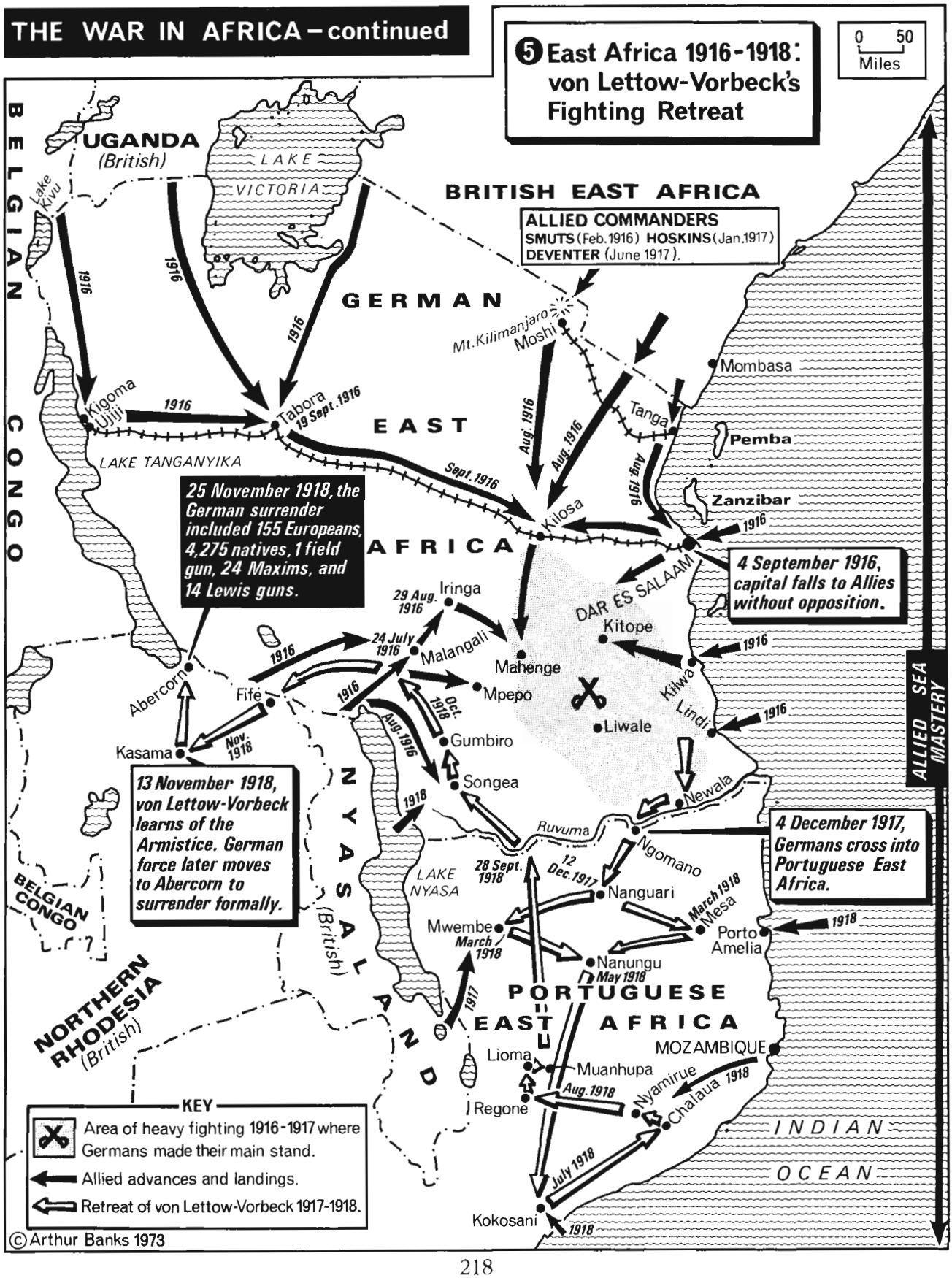




## SMS 'KÖNIGSBERG'

*The German light cruiser 'Königsberg' sank HMS 'Pegasus' in Zanzibar harbour in September 1914 but later was blockaded in the Rufiji river. She was destroyed on 11 July 1915 after an action with British monitors and two aircraft, but her guns were salvaged and used by the Germans in east Africa.*

STRENGTHS AND CASUALTIES

These cannot be given precisely on maps as a detailed analysis of each total is necessary. For example, the German force which surrendered at Abercorn on 25 November 1918, included 30 German officers, 125 other Europeans, Askari, porters, headmen, natives, and women.


5 East Africa 1916-1918: von Lettow-Vorbeck's Fighting Retreat
0 50 Miles
BELGIAN CONGO
UGANDA (British)
LAKE VICTORIA
Lake Kivu
BRITISH EAST AFRICA
ALLIED COMMANDERS
SMUTS (Feb. 1916) HOSKINS (Jan. 1917)
DEVENTER (June 1917).
GERMAN EAST AFRICA
Mt. Kilimanjaro
Moshi
Mombasa
Tanga
Pemba
Zanzibar
Kigoma
Ujiji
Tabora
19 Sept. 1916
LAKE TANGANYIKA
Kilosa
Dar es Salaam
Kitope
Kilwa
Lindi
Mahenge
Iringa
29 Aug. 1916
Malangali
24 July 1916
Mpepo
Liwale
Gumbiro
Songea
Abercorn
Fife
Kasama
Nov. 1918
Oct. 1918
Aug. 1916
Newala
Ruvuma
Ngomano
Nanguari
28 Sept. 1918
12 Dec. 1917
March 1918
Mesa
Porto Amelia
Mwembe
March 1918
Nanungu
May 1918
NYASALAND (British)
LAKE NYASA
NORTHERN RHODESIA (British)
BELGIAN CONGO
PORTUGUESE EAST AFRICA
MOZAMBIQUE
Lioma
Muanhupa
Regone
Aug. 1918
Nyamirue
Chalaua 1918
July 1918
Kokosani
INDIAN OCEAN
ALLIED SEA MASTERY
25 November 1918, the German surrender included 155 Europeans, 4,275 natives, 1 field gun, 24 Maxims, and 14 Lewis guns.
4 September 1916, capital falls to Allies without opposition.
13 November 1918, von Lettow-Vorbeck learns of the Armistice. German force later moves to Abercorn to surrender formally.
4 December 1917, Germans cross into Portuguese East Africa.
KEY
Area of heavy fighting 1916-1917 where Germans made their main stand.
Allied advances and landings.
Retreat of von Lettow-Vorbeck 1917-1918.
© Arthur Banks 1973

# WEAPONS

During the half century preceding the First World War military science had taken note of technological developments but had not appreciated the extent to which they revolutionised traditional concepts of warfare. French infantrymen armed with the *chassepot* breech-loading rifle had wrought havoc with the German attackers in 1870 and convinced military authorities that rifles would henceforth strengthen the defensive position of troops, especially if they were also supported by artillery. But because the original French machine guns —the *mitrailleuses*—of 1870 had proved ineffectual, the potentialities of this weapon were ignored. The trench fighting of the Russo-Japanese War (1905–1905) should have awakened an interest in the machine gun, for Maxim's water-cooled weapon of 1884, firing 2,000 rounds in three minutes, was very different from the prototypes of the Franco-Prussian campaign; and it was eventually the German Maxim which proved so terribly effective on the first day of the Somme (compare pages 152–153 and page 224). Without well-sited machine guns and barbed-wire entanglements, there would have been no war of stalemate on the Western Front.

At first it was assumed that mobility could be restored to warfare by artillery power. This, at least, had been a lesson of the Russo-Japanese War, and in the ten years before Sarajevo much attention was given to the development of howitzers, the heaviest models being used to reduce the Belgian fortifications in 1914 (pages 33 and 62). The most effective field gun was the French 75-mm (page 33), with a buffer recoil system which allowed a fire rate of 20/30 rounds a minute. By contrast, the British 18-pounder had a rate of fire of only 8 rounds a minute, and this was faster than the best German and Austrian guns. During the First World War three-quarters of the wounds caused by guns came from shells, high explosive or shrapnel, rather from bullets.

The experience of the long barrages used as preparation for offensives in 1915 showed that artillery was a less decisive weapon in the field than the experts had anticipated. Concrete pill-boxes stood up against most normal field artillery, while the barrages ruled out all element of surprise and made soft ground impassable to heavily encumbered infantry. It was partly to overcome these problems that petrol driven armoured vehicles with caterpillar tracks were introduced, first as 'tanks' in the British army and then into the armies of other countries. No commander, however, felt sufficiently confident to develop the tank as a revolutionary weapon in its own right. On the Somme in 1916 tanks suffered as much as infantry from shell craters, and at Cambrai in 1917 (page 174) no attempt was made to follow penetration by exploitation with vehicles mounted on caterpillar tracks. Moreover, although use was made of armoured cars, lorries (notably at Verdun), and the famous Paris taxis (page 55), the value of the internal combustion engine was only slowly perceived.

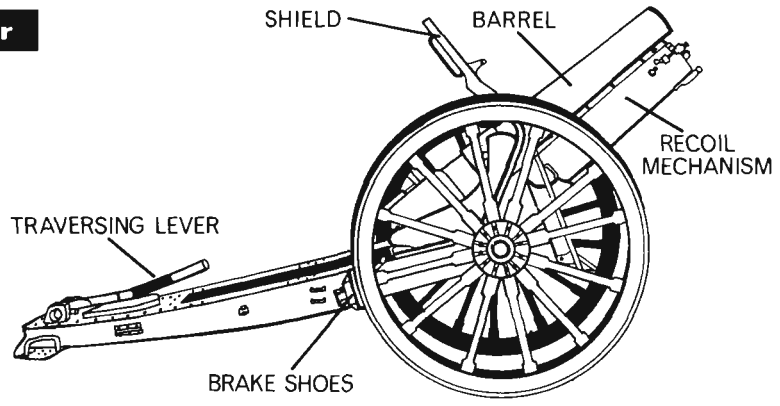
This hardly is surprising: military minds did not rapidly assimilate the changed patterns of daily life. Thus, although the transport of armies by rail from one war zone to another dates from 1862–1863 (both Confederate and Union forces in the American Civil War), it was not until the outbreak of the First World War that the smooth running of a railway transport system was recognised as an essential prerequisite for offensive operations. General Groener, who succeeded Ludendorff as virtual field commander in the last days of the War, was the first military leader to have 'graduated' as a railway specialist.

By contrast, trench warfare brought new forms of old weapons: clubs, knives, canisters of burning oil, pistols and revolvers. The greatest innovations of all, however, were in the skies and under the waves.

# TWELVE IMPORTANT ARTILLERY WEAPONS 1914–1918

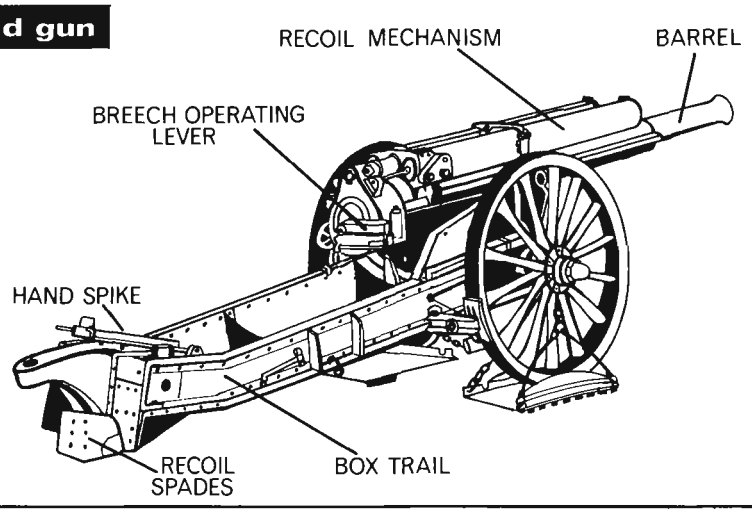
## British 4·5-inch howitzer

| | |
|---|---|
| Length of gun (overall): | 13 feet, 6 inches. |
| Weight of gun in action: | 3,004 pounds. |
| Range: | 7,000 yards. |
| Elevation: | -5 to +45 degs. |
| Barrel length: | 13·33 calibres. |
| Weight of shell: | 35 pounds. |
| Muzzle velocity: | 1,010 ft./sec. |
| Rate of fire: | 4 rds. per min. |



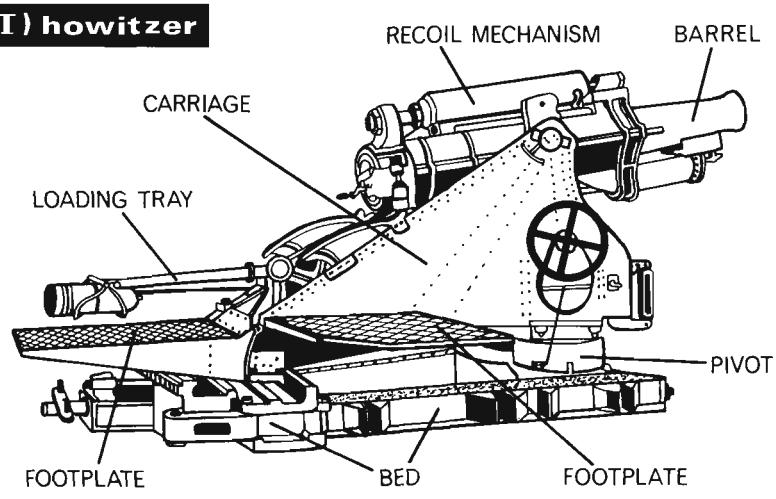

## British 60-pounder field gun

| | |
|---|---|
| Length of gun (overall): | 21 feet, 7 inches. |
| Weight of gun in action: | 11,705 pounds. |
| Range: | 10,300 yards. |
| Elevation: | 21°30′. |
| Barrel length: | 33·61 calibres. |
| Weight of shell: | 60 pounds. |
| Muzzle velocity: | 2,149 ft./sec. |
| Rate of fire: | 2 rds. per min. |
| Traverse: | 4° left/4° right. |
| Calibre: | 5 inches. |



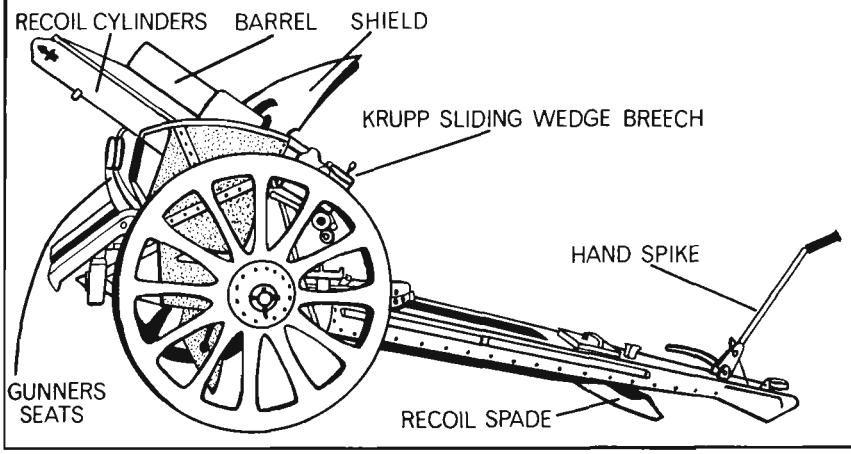

## British 9·2-inch (Mark I) howitzer

| | |
|---|---|
| Length of gun (overall): | 11 feet, 15 inches. |
| Weight of gun in action: | 25,906 pounds. |
| Range: | 10,000 yards. |
| Elevation: | 55°. |
| Barrel length: | 14·5 calibres. |
| Weight of shell: | 290 pounds. |
| Muzzle velocity: | 1,187 ft./sec. |
| Rate of fire: | 2 rds. per min. |
| Traverse: | 30° left/30° right. |
| Height: | 8 feet, 6 inches. |




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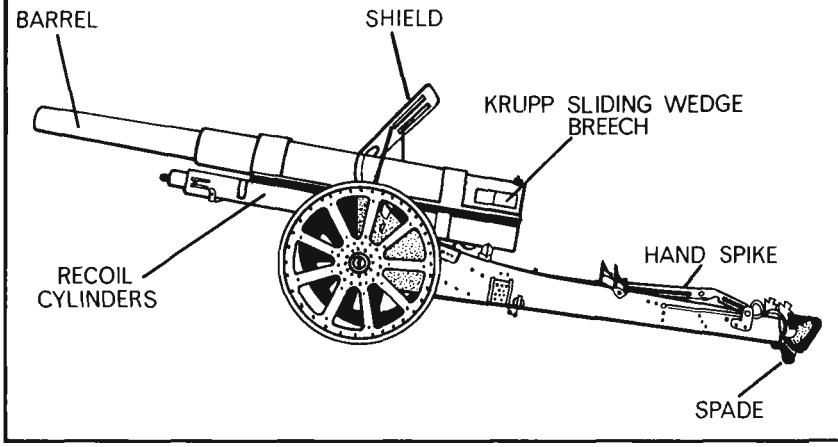
## German 10·5-cm. howitzer 1916




| | |
|---|---|
| Length of gun (overall): | 12 feet. |
| Weight of gun in action: | 3,036 pounds. |
| Range: | 6,250 yards. |
| Elevation: | 40° |
| Barrel length: | 22 calibres. |
| Weight of shell: | 34·5 pounds. |
| Muzzle velocity: | 1,400 ft./sec. |
| Rate of fire: | 4 rds. per min. |
| Traverse: | 4° left/4° right. |

(note: unusual nine increment cartridge).

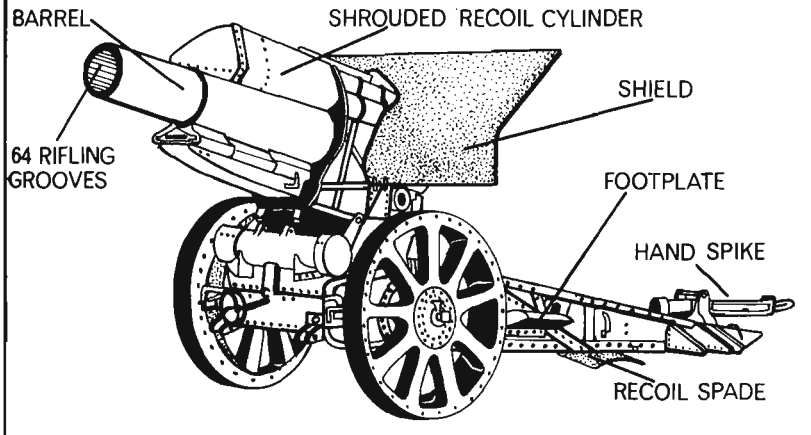
## German 13-cm. (Model 1913) field gun




| | |
|---|---|
| Length of gun (overall): | 22 feet. |
| Weight of gun in action: | 12,768 pounds. |
| Range: | 15,750 yards. |
| Elevation: | 26° |
| Barrel length: | 35 calibres. |
| Weight of shell: | 89 pounds. |
| Muzzle velocity: | 2,280 ft./sec. |
| Rate of fire: | 2 rds. per min. |
| Traverse: | 2° left/2° right. |

(note: shrapnel shell contains 1,170 lead bullets).

## German 21-cm. "mörser"



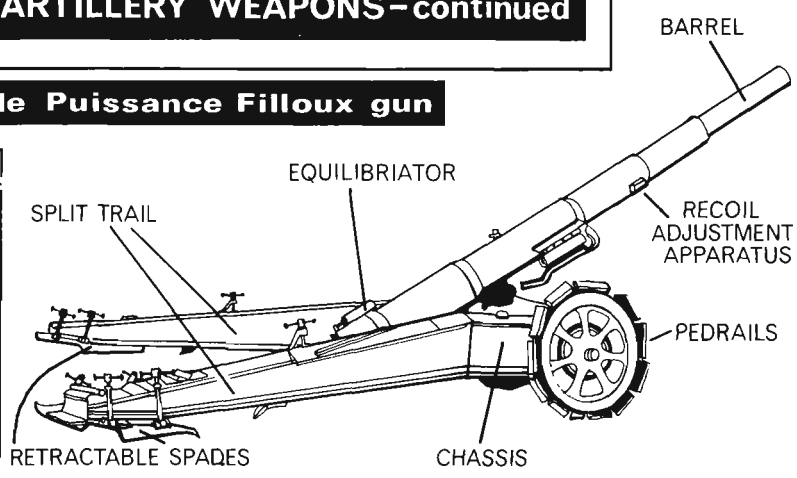

| | |
|---|---|
| Length of gun (overall): | 20 feet. |
| Weight of gun in action: | 9,828 pounds. |
| Range: | 10,280 yards. |
| Elevation: | 70° |
| Barrel length: | 12 calibres. |
| Weight of shell: | 184 pounds. |
| Muzzle velocity: | 1,203 ft./sec. |
| Rate of fire: | 2 rds. per min. |
| Traverse: | 2° left/2° right. |

(note: H.E. shell contains 17 pounds of amatol).

# TWELVE IMPORTANT ARTILLERY WEAPONS - continued

## French 155-mm. Grande Puissance Filloux gun

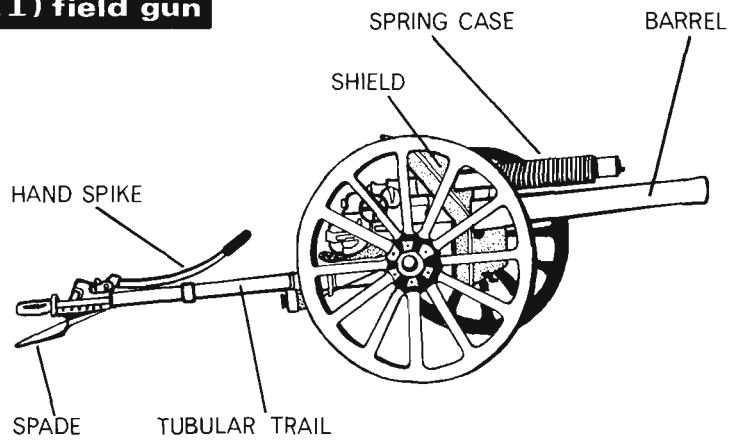
| | |
|---|---|
| Length of gun (overall): | 29 feet, 7 inches. |
| Weight of gun in action: | 24,640 pounds. |
| Range: | 19,650 yards. |
| Elevation: | 35°. |
| Barrel length: | 38·2 calibres. |
| Weight of shell: | 97 pounds. |
| Muzzle velocity: | 2,339 ft./sec. |
| Rate of fire: | 2 rds. per min. |




## British 18-pounder (Mark I) field gun

| | |
|---|---|
| Length of gun (overall): | 13 feet, 8 inches. |
| Weight of gun in action: | 2,904 pounds. |
| Range: | 7,000 yards. |
| Calibre: | 3·3 inches. |
| Elevation: | -5 to +6 degs. |
| Barrel length: | 28 calibres. |
| Weight of shell: | 18 pounds. |
| Muzzle velocity: | 1,614 ft./sec. |
| Rate of fire: | 8 rds. per min. |

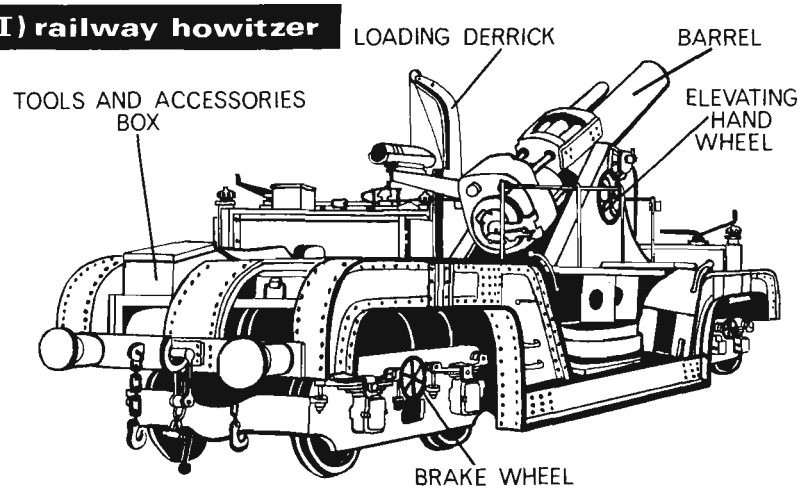
(note: developed from the lessons of the Boer War).




## British 12-inch (Mark III) railway howitzer

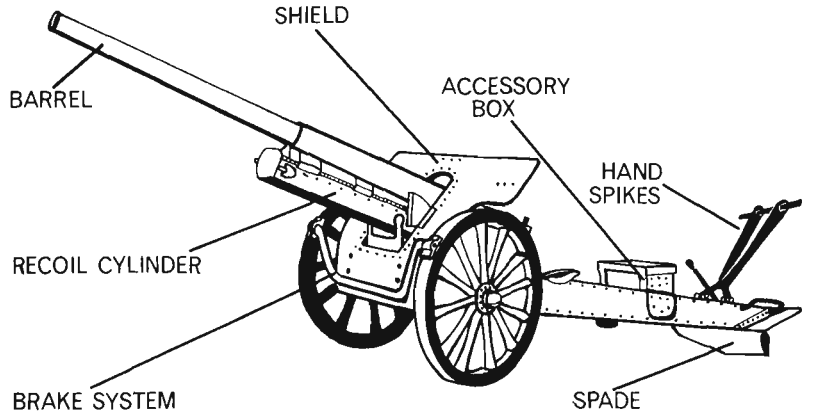
| | |
|---|---|
| Length of mounting: | 41 feet, 3 inches. |
| Weight of gun in action: | 76 tons. |
| Range: | 14,300 yards. |
| Elevation: | 40°. |
| Barrel length: | 17·3 calibres. |
| Weight of shell: | 750 pounds. |
| Muzzle velocity: | 1,474 ft./sec. |
| Rate of fire: | 1 rd. per min. |
| Traverse: | 5° left/5° right. |

(note: most used British railway howitzer).




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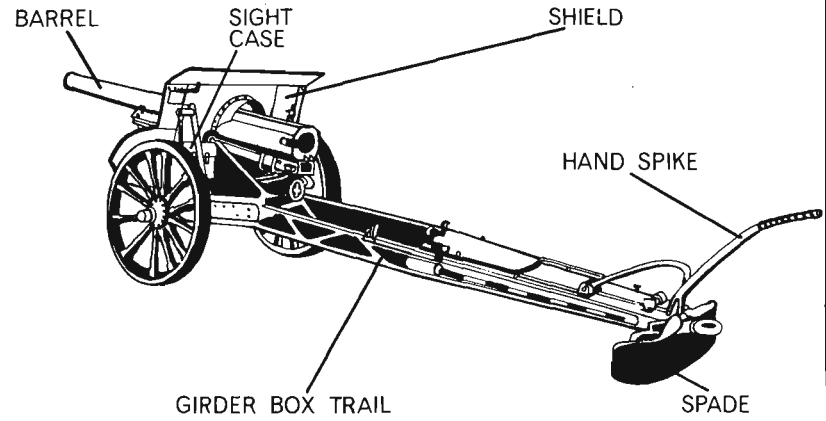
## German 10-cm. (Model 1917) field gun




| | |
|---|---|
| Length of gun (overall): | 20 feet. |
| Weight of gun in action: | 6,104 pounds. |
| Range: | 12,085 yards. |
| Elevation: | -5 to +30 degs. |
| Barrel length: | 35 calibres. |
| Weight of shell: | 39·5 pounds. |
| Muzzle velocity: | 1,923 ft./sec. |
| Rate of fire: | 2 rds. per min. |
| Traverse: | 2° left/2° right. |

(note: smallest high-velocity gun in field use during 1914–1918 war).

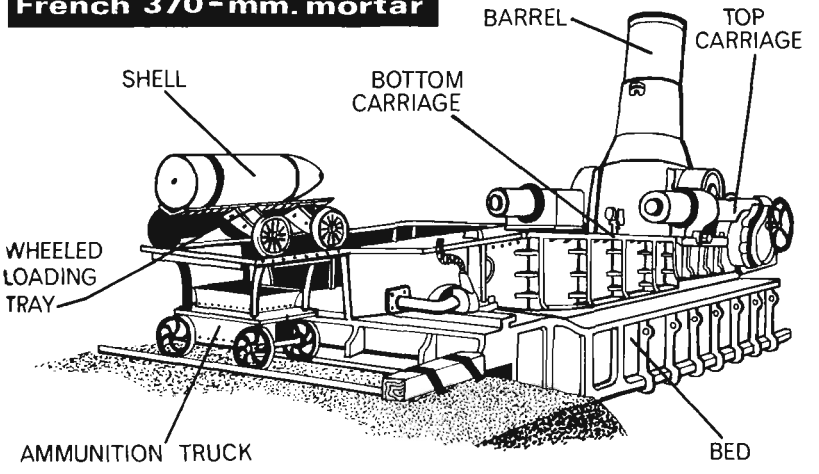
## Austrian 10·4-cm. field gun M.14




| | |
|---|---|
| Length of gun (overall): | 14 feet. |
| Weight of gun in action: | 5,040 pounds. |
| Range: | 13,670 yards. |
| Elevation: | -10 to +30 degs. |
| Barrel length: | 35 calibres. |
| Weight of shell: | 38·5 pounds. |
| Muzzle velocity: | 2,230 ft./sec. |
| Rate of fire: | 4 rds. per min. |
| Traverse: | 3° left/3° right. |

(note: first Austrian steel field gun: previous guns were bronze).

## French 370-mm. mortar

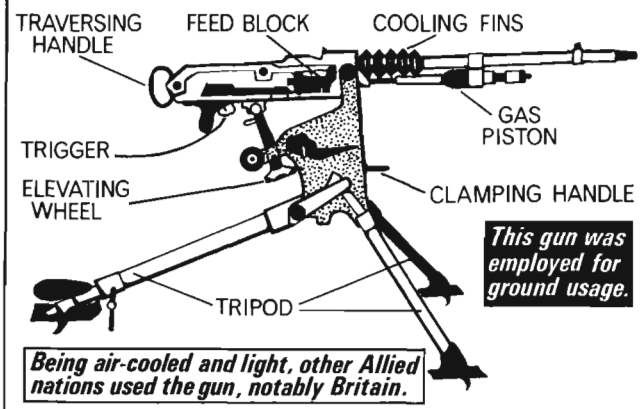



| | |
|---|---|
| Length of gun: | 13 feet. |
| Weight of gun in action: | 30 tons. |
| Range: | 8,820 yards. |
| Elevation: | 60°. |
| Barrel length: | 8 calibres. |
| Weight of shell: | 1,076 pounds. |
| Muzzle velocity: | 1,230 ft./sec. |
| Rate of fire: | 1 rd. per 2 mins. |
| Traverse: | Nil. |

(note: shell contains 262 pounds of high explosive).

# SIX IMPORTANT MACHINE GUNS 1914-1918

## French HOTCHKISS (1914 Model)




*This gun was employed for ground usage.*

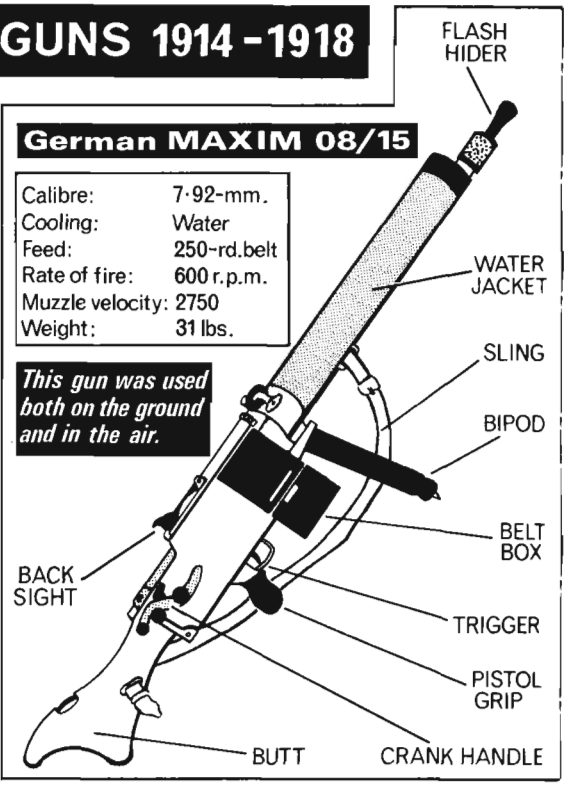
***Being air-cooled and light, other Allied nations used the gun, notably Britain.***

| | | | |
|---|---|---|---|
| Calibre: | 8-mm. | Weight: | 55 lbs. and 60 lb. tripod |
| Cooling: | Air | Rate of fire: | 600 r.p.m. |
| Feed: | 30-round strip | Muzzle velocity: | 2291 |

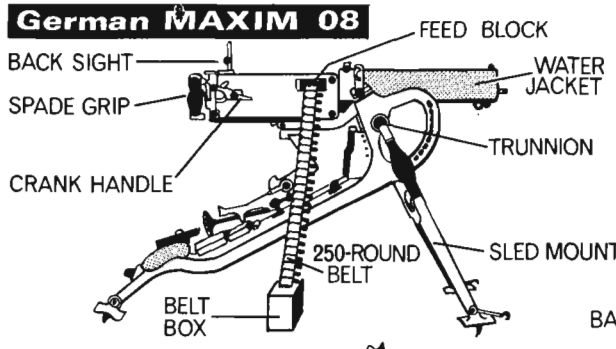
## German MAXIM 08/15

| | |
|---|---|
| Calibre: | 7·92-mm. |
| Cooling: | Water |
| Feed: | 250-rd. belt |
| Rate of fire: | 600 r.p.m. |
| Muzzle velocity: | 2750 |
| Weight: | 31 lbs. |

*This gun was used both on the ground and in the air.*

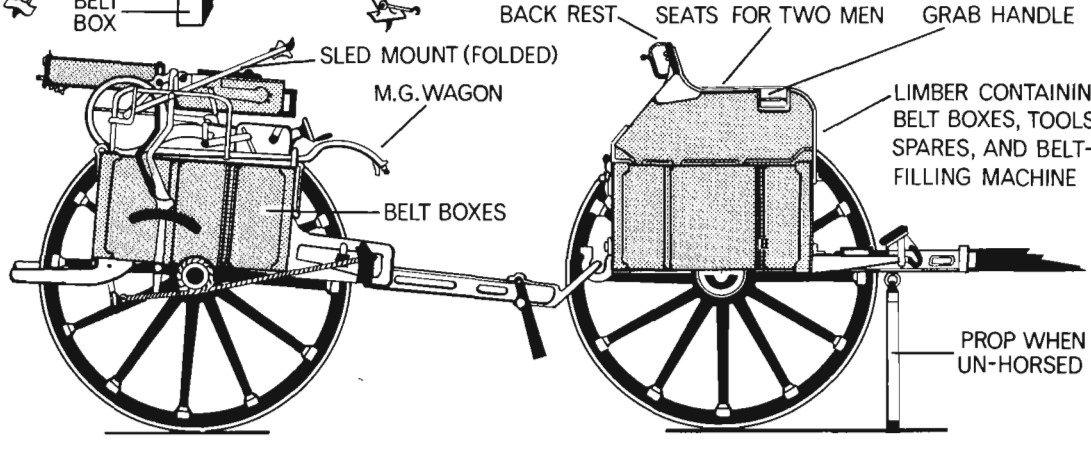



## German MAXIM 08




| | | | |
|---|---|---|---|
| Calibre: | 7·92-mm. | Weight: | 40·5 lbs. & 83 lbs. sleigh mt. |
| Cooling: | Water | Rate of fire: | 600 r.p.m. |
| Feed: | 250-round belt | Muzzle velocity: | 2750 |

*This particular type saw ground service. A modified version was sometimes employed in the air.*

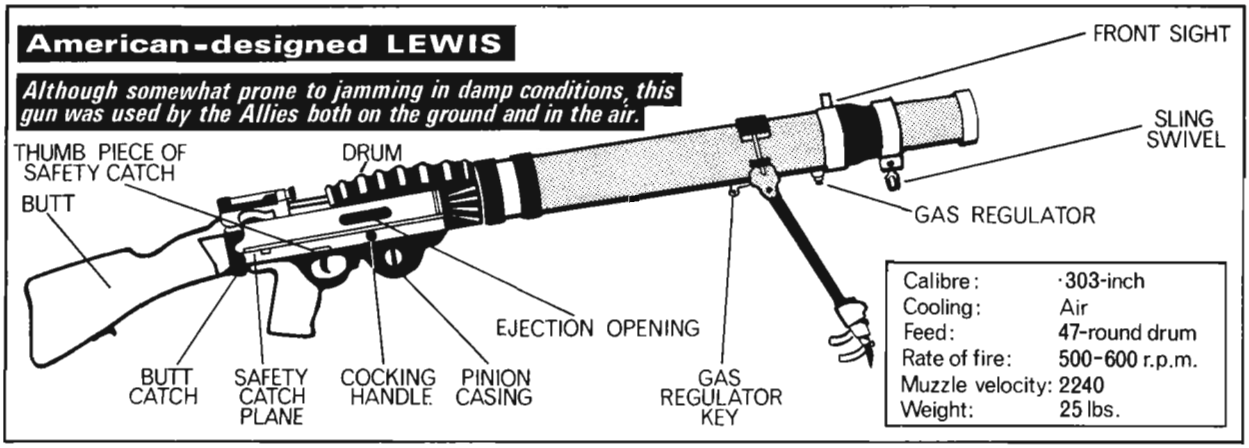



***This gun was the "slayer" of 1 July 1916, the opening day of the Allied infantry offensive at the Battle of the Somme. Its devastating fire-power accounted for 90% of the 60,000 Allied casualties (mainly British) incurred on that one day.***

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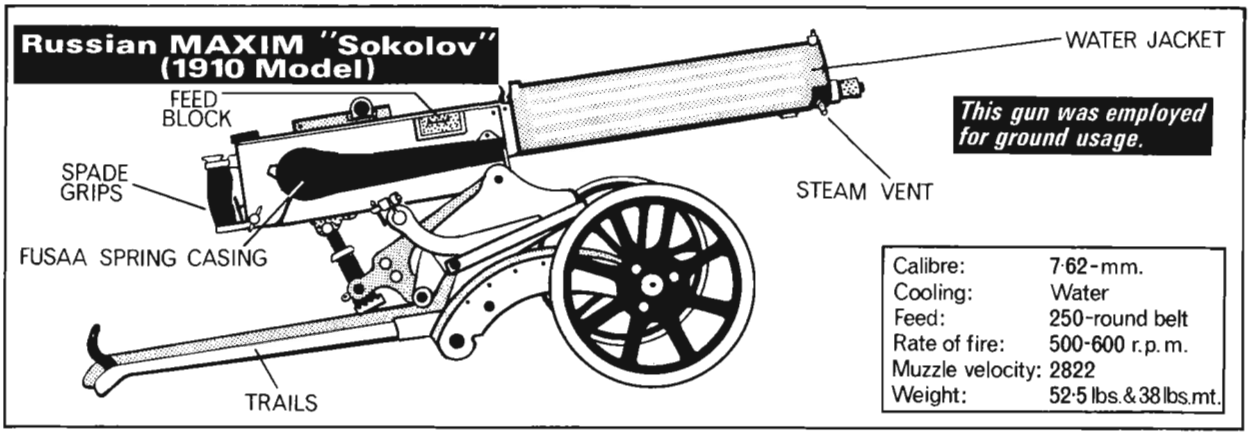
## American-designed LEWIS

*Although somewhat prone to jamming in damp conditions, this gun was used by the Allies both on the ground and in the air.*




| | |
|---|---|
| Calibre: | ·303-inch |
| Cooling: | Air |
| Feed: | 47-round drum |
| Rate of fire: | 500-600 r.p.m. |
| Muzzle velocity: | 2240 |
| Weight: | 25 lbs. |

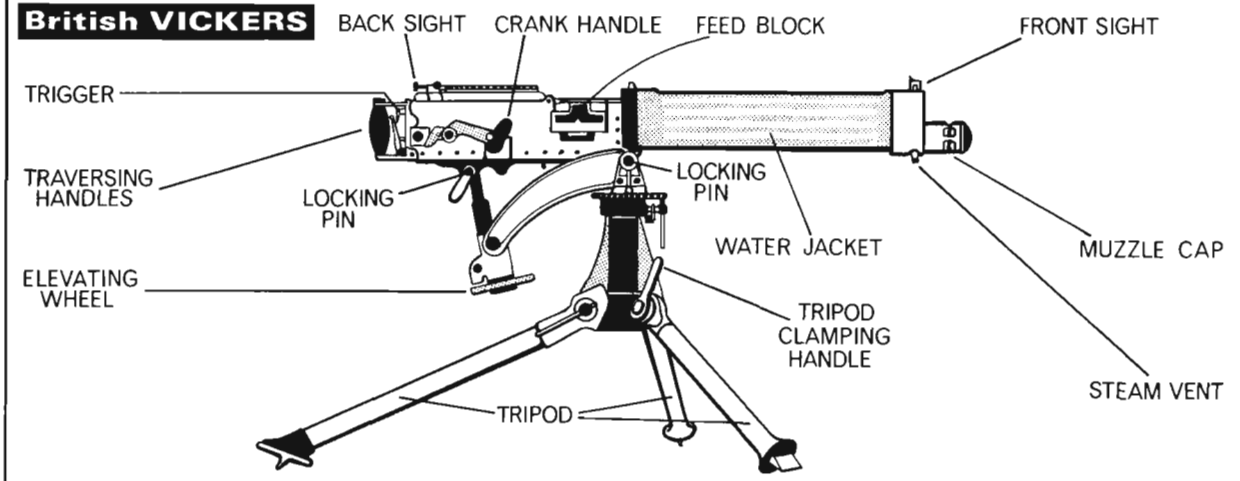
## Russian MAXIM "Sokolov" (1910 Model)




*This gun was employed for ground usage.*

| | |
|---|---|
| Calibre: | 7·62-mm. |
| Cooling: | Water |
| Feed: | 250-round belt |
| Rate of fire: | 500-600 r.p.m. |
| Muzzle velocity: | 2822 |
| Weight: | 52·5 lbs. & 38 lbs.mt. |

## British VICKERS



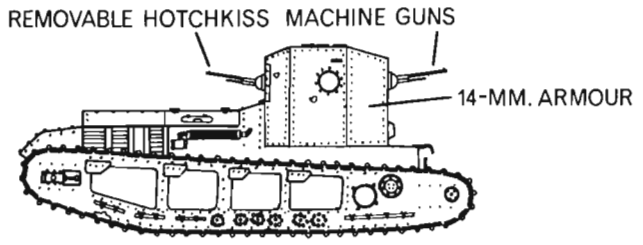

| | | | |
|---|---|---|---|
| Calibre: | ·303-inch | Rate of fire: | 500 r.p.m. |
| Cooling: | Water | Muzzle velocity: | 2240 |
| Feed: | 250-round belt | Weight: | 33 lbs. and 40 lbs. tripod |

*This gun was used by all the Allies, both in the air and on the ground.*

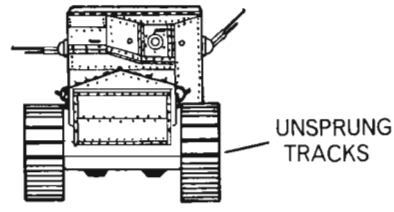
# FOUR IMPORTANT TANKS 1916–1918

## British Medium Mark A "Whippet"

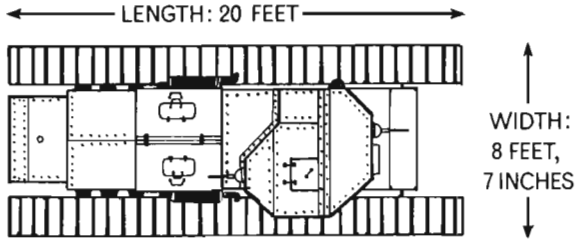
Weight: 14 tons.
Speed: 8·3 m.p.h.
Range: 80 miles.
Crew: 3.
Engines: 2 Tylor (total: 90 h.p.).



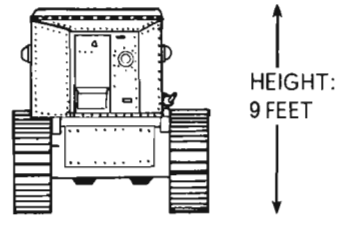

SIDE ELEVATION




FRONT ELEVATION



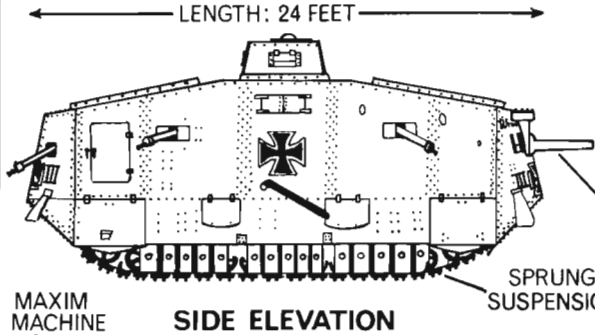

PLAN VIEW



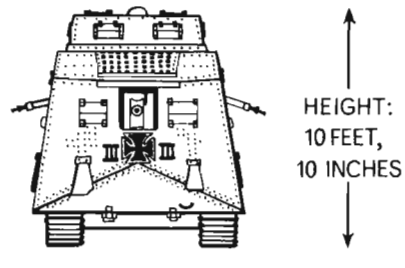

REAR ELEVATION

## German A7V Sturmpanzerwagen

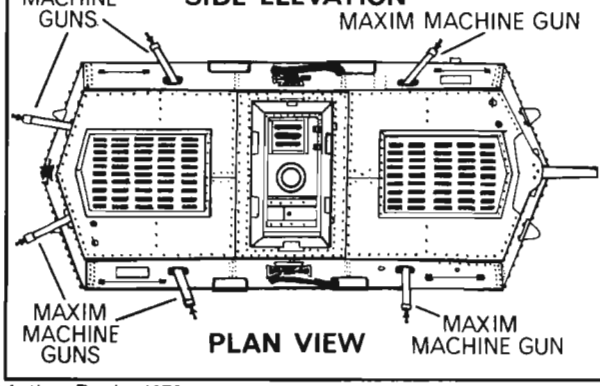
Weight: 30 tons. Speed: 8 m.p.h. Crew: 18.
Engines: 2 Daimler four-cylinder (total: 200 h.p.).



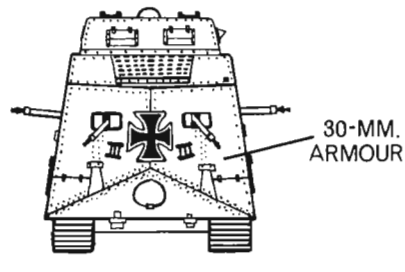

SIDE ELEVATION




FRONT ELEVATION




PLAN VIEW

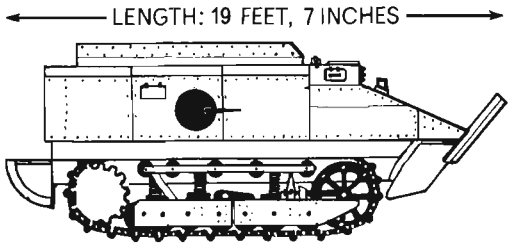



REAR ELEVATION

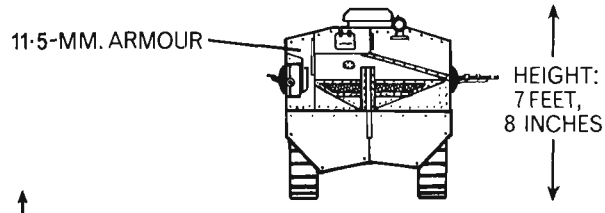
© Arthur Banks 1973

## French Schneider M.16 CA1

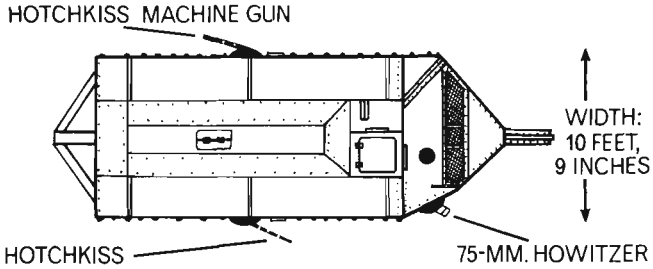
| | |
|---|---|
| Weight: | 13·5 tons. |
| Speed: | 4·5 m.p.h. |
| Range: | 25 miles. |
| Crew: | 6/7. |
| Engine: | Schneider, four-cylinder, watercooled, 55 h.p. |




SIDE ELEVATION



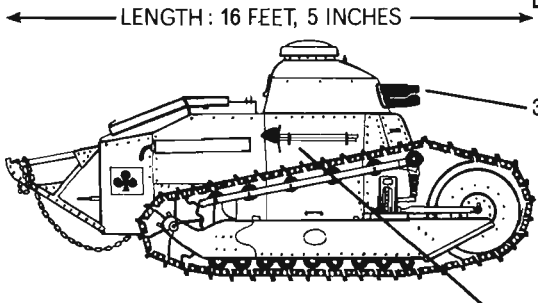

FRONT ELEVATION



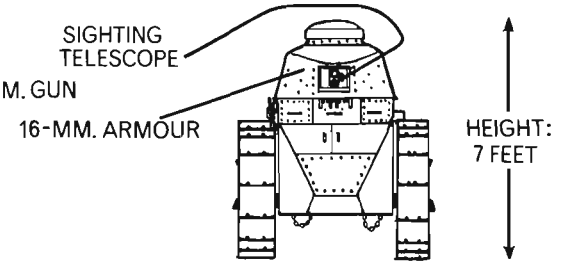

PLAN VIEW

## French Light Renault FT 17

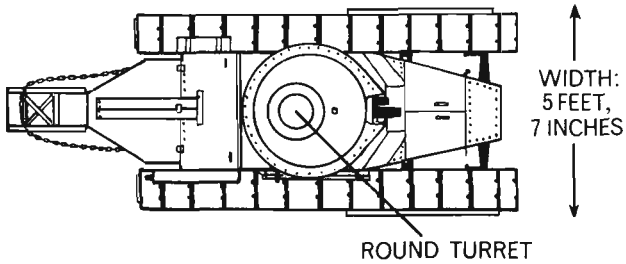
Weight: 6·4 tons Speed: 4·8 m.p.h. Crew: 2.
Engine: Renault, four-cylinder, 35 h.p.



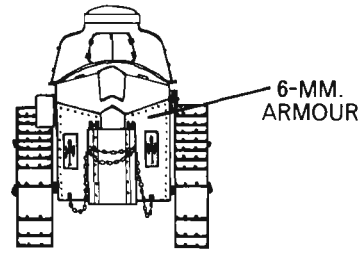

SIDE ELEVATION




FRONT ELEVATION




PLAN VIEW




REAR ELEVATION

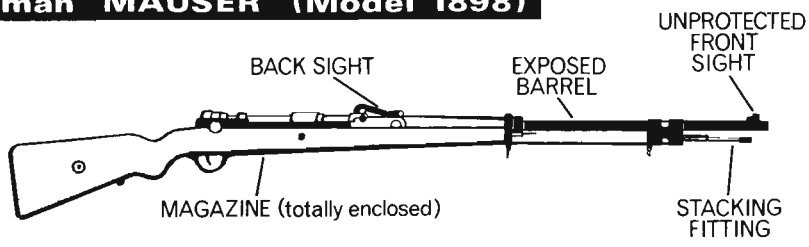
# NINE IMPORTANT RIFLES 1914-1918

*The rifles of the 1914–1918 war were basically similar in performance. All incorporated hand-operated bolt actions, some straight pull, others turn-bolt. Reliability varied somewhat, but no single rifle had any outstanding advantage over the others. In 1918, efforts were made to produce rifles of a self-loading nature, but only one type saw some limited service. The vast majority of rifles used were of the basic types shown on these pages.*

### *THE BRITISH REGULAR ARMY*

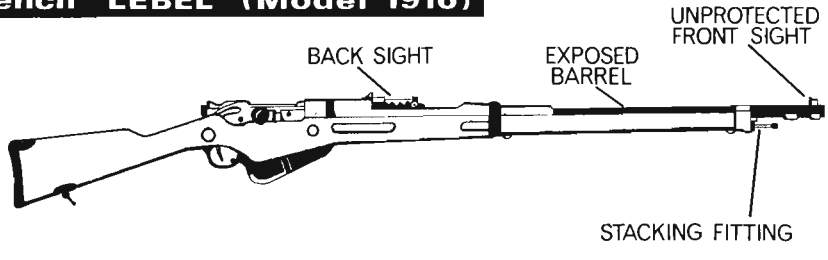
***Prior to the war, the British Regular Army paid particular attention to training its infantry in marksmanship and "rapid fire" techniques and by the outbreak in August 1914, regiments contained riflemen with ability to fire at rates of 15-20 rounds per minute with great accuracy.***

## German "MAUSER" (Model 1898)



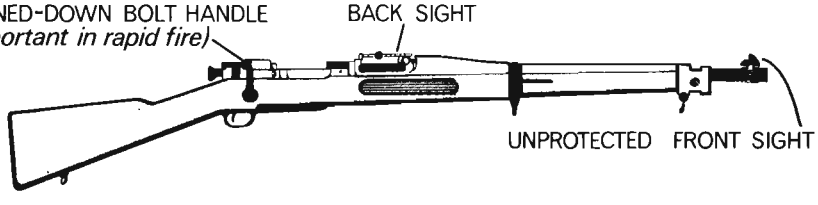

| | |
|---|---|
| Calibre: | 7·92-mm. |
| Length overall: | 49·25 inches |
| Barrel length: | 29·15 inches |
| Magazine (full): | 5 rounds |
| Weight: | 9·5 lbs. |
| Muzzle velocity: | 2,500 ft./sec. |

## French "LEBEL" (Model 1916)



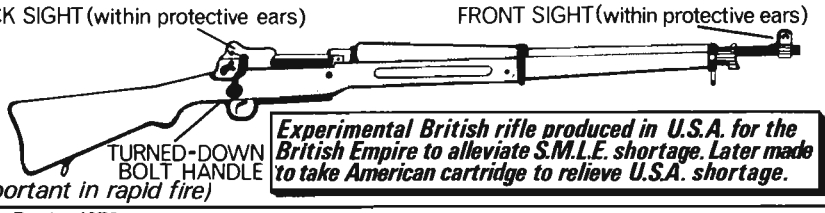

| | |
|---|---|
| Calibre: | 8-mm. |
| Length overall: | 51·3 inches |
| Barrel length: | 31·4 inches |
| Magazine (full): | 8 rounds |
| Weight: | 9·35 lbs. |
| Muzzle velocity: | 2,380 ft./sec. |

## United States "SPRINGFIELD" (Model 1903)




| | |
|---|---|
| Calibre: | 30.06 |
| Length overall: | 43·25 inches |
| Barrel length: | 24 inches |
| Magazine (full): | 5 rounds |
| Weight: | 8·69 lbs. |
| Muzzle velocity: | 2,500 ft./sec. |

## United States (Model 1917)

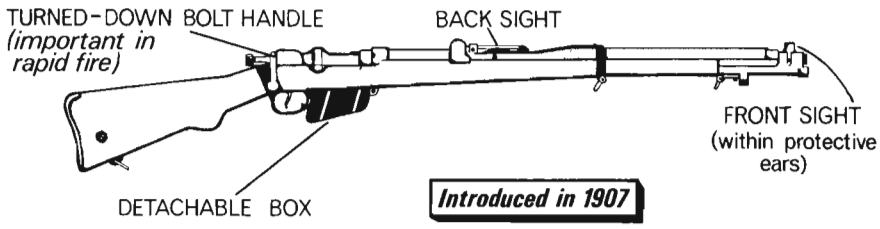



***Experimental British rifle produced in U.S.A. for the British Empire to alleviate S.M.L.E. shortage. Later made to take American cartridge to relieve U.S.A. shortage.***

| | |
|---|---|
| Calibre: | 30.06 |
| Length overall: | 46·25 inches |
| Barrel length: | 26 inches |
| Magazine (full): | 5 rounds |
| Weight: | 9·62 lbs. |
| Muzzle velocity: | 2,600 ft./sec. |

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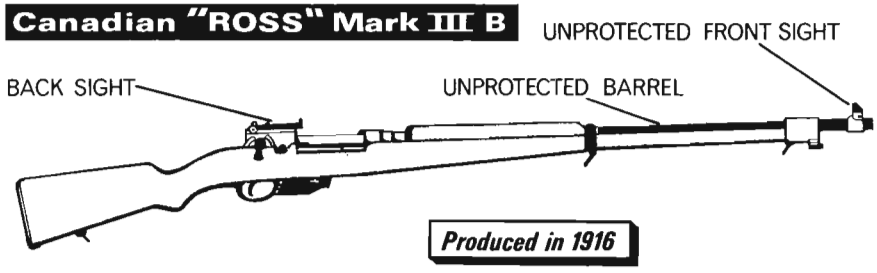
## British SHORT MAGAZINE "LEE-ENFIELD" Mark III




*Introduced in 1907*

| | |
|---|---|
| Calibre: | ·303-inch |
| Length overall: | 44·5 inches |
| Barrel length: | 25·19 inches |
| Magazine (full): | 10 rounds |
| Weight: | 8·12 lbs. |
| Muzzle velocity: | 2,060 ft./sec. |

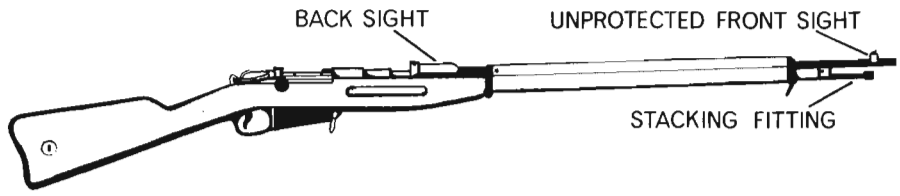
## Canadian "ROSS" Mark III B




*Produced in 1916*

| | |
|---|---|
| Calibre: | ·303-inch |
| Length overall: | 50·5 inches |
| Barrel length: | 30·5 inches |
| Magazine (full): | 5 rounds |
| Weight: | 9·75 lbs. |
| Muzzle velocity: | 2,060 ft./sec. |

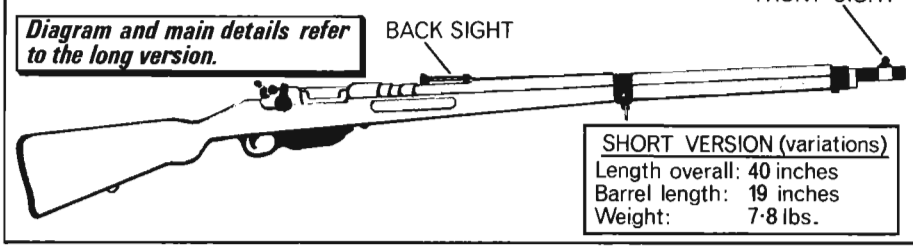
## Russian "MOISIN-NAGANT" (Model 1891)




| | |
|---|---|
| Calibre: | 7·62-mm. |
| Length overall: | 51·37 inches |
| Barrel length: | 31·6 inches |
| Magazine (full): | 5 rounds |
| Weight: | 9·62 lbs. |
| Muzzle velocity: | 2,660 ft./sec. |

## Austrian "MÄNNLICHER" (Model 1895)

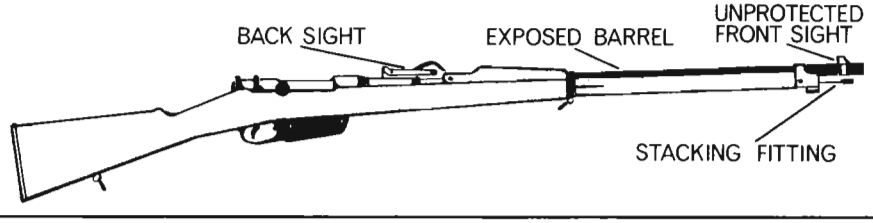
*Diagram and main details refer to the long version.*




SHORT VERSION (variations)
Length overall: 40 inches
Barrel length: 19 inches
Weight: 7·8 lbs.

| | |
|---|---|
| Calibre: | 8-mm. |
| Length overall: | 50 inches |
| Barrel length: | 30 inches |
| Magazine (full): | 5 rounds |
| Weight: | 8·4 lbs. |
| Muzzle velocity: | 2,030 ft./sec. |

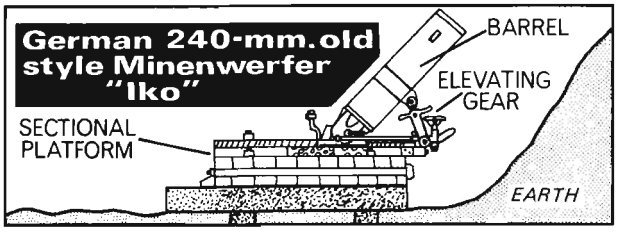
## Italian "MÄNNLICHER-CARCANO" (Model 1891)



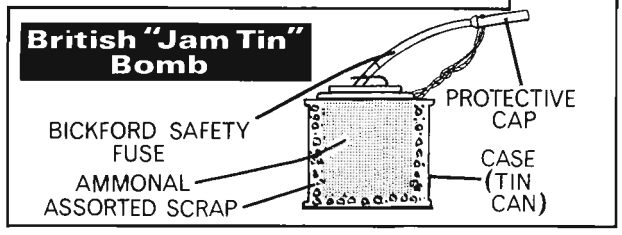

| | |
|---|---|
| Calibre: | 6·5-mm. |
| Length overall: | 50·75 inches |
| Barrel length: | 30·7 inches |
| Magazine (full): | 6 rounds |
| Weight: | 9 lbs. |
| Muzzle velocity: | 2,200 ft./sec. |

# TWENTY TRENCH WEAPONS AND MUNITIONS

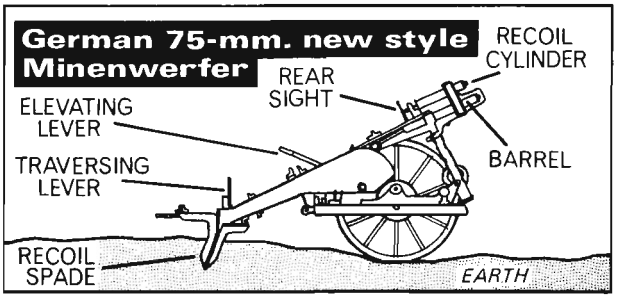
## German 240-mm. old style Minenwerfer "Iko"



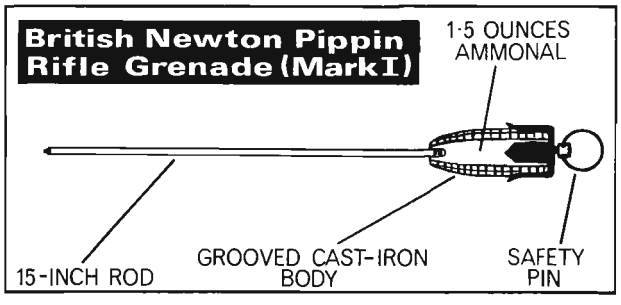

## British "Jam Tin" Bomb



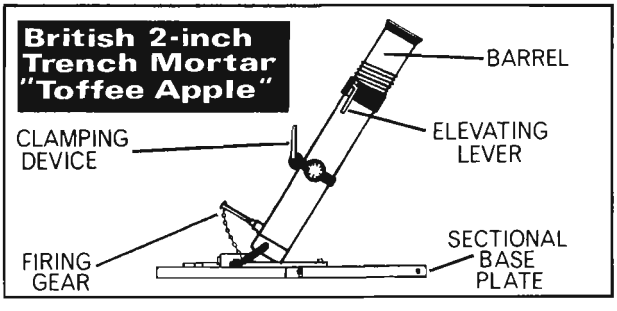

## German 75-mm. new style Minenwerfer



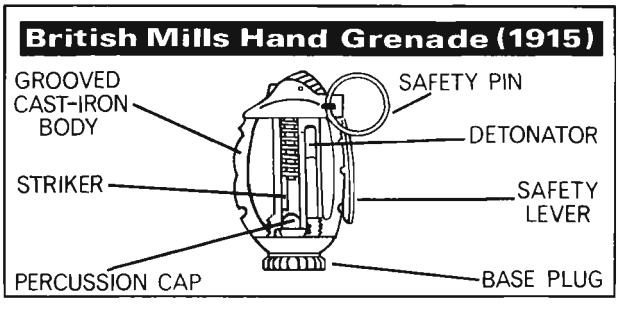

## British Newton Pippin Rifle Grenade (Mark I)



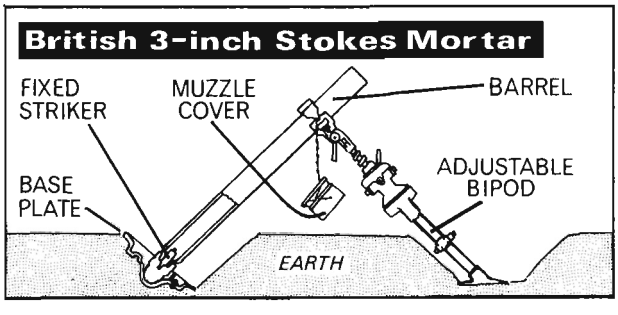

## British 2-inch Trench Mortar "Toffee Apple"



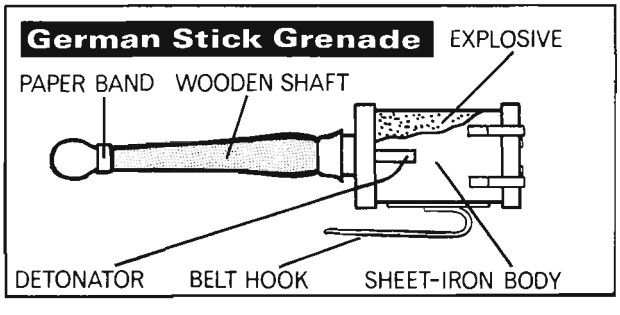

## British Mills Hand Grenade (1915)



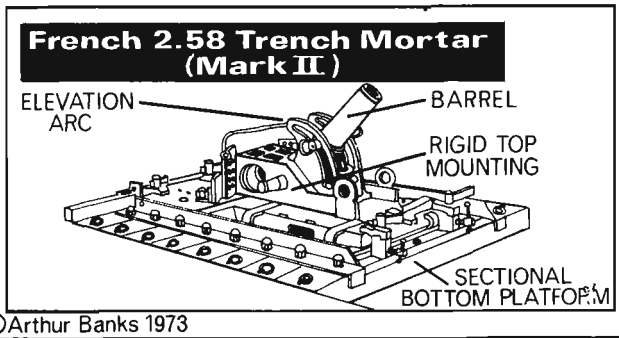

## British 3-inch Stokes Mortar



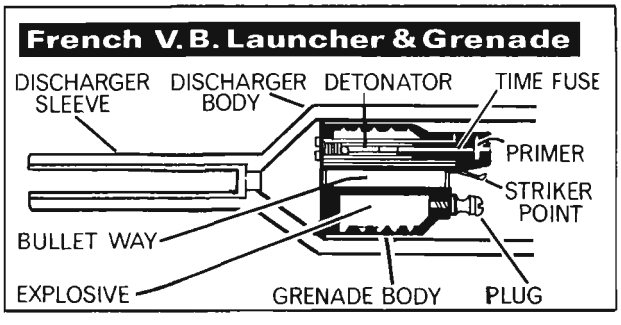

## German Stick Grenade




## French 2.58 Trench Mortar (Mark II)

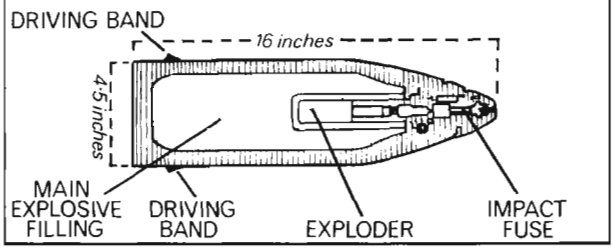



## French V.B. Launcher & Grenade

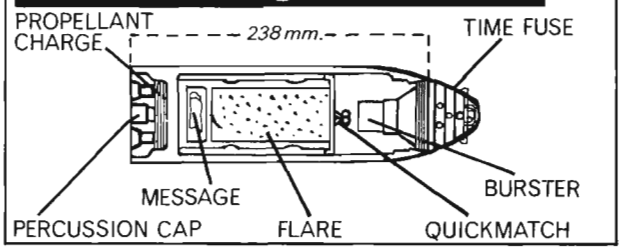



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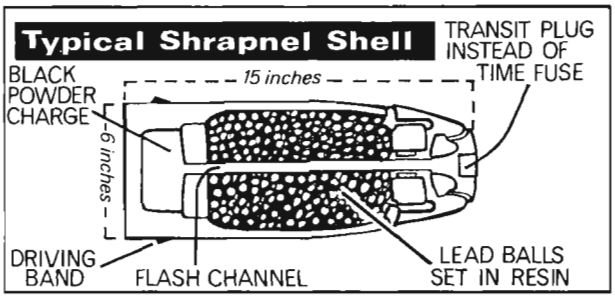
## Typical High Explosive Shell




## German 76-mm. Minenwerfer Message Shell

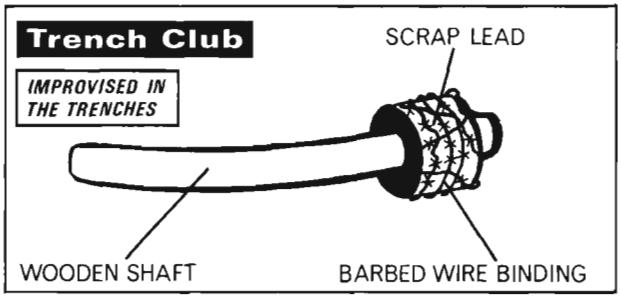



## Typical Shrapnel Shell

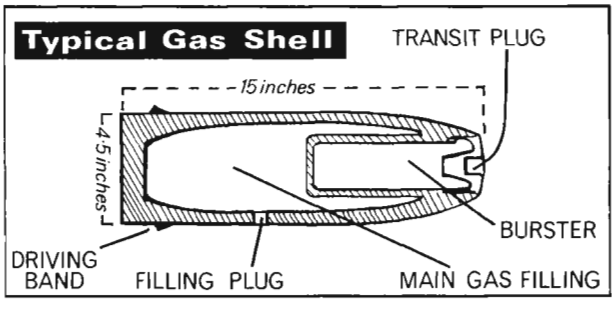



## Trench Club

*IMPROVISED IN THE TRENCHES*

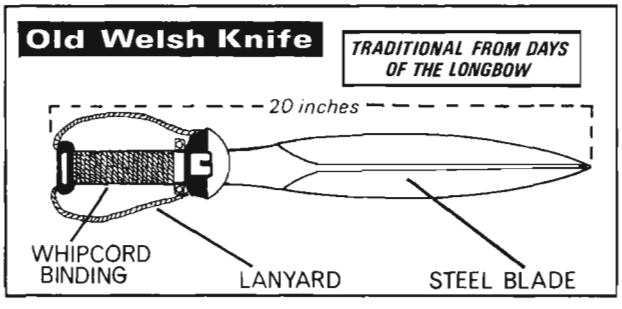



## Typical Gas Shell

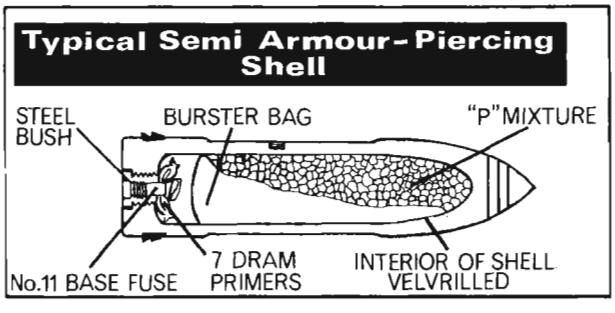



## Old Welsh Knife

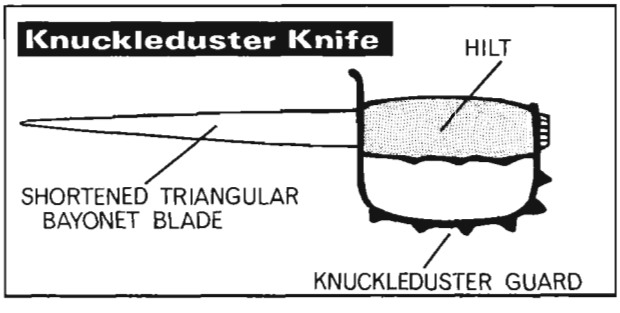
*TRADITIONAL FROM DAYS OF THE LONGBOW*



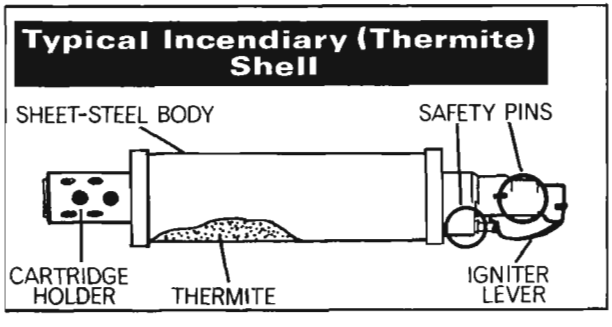

## Typical Semi Armour-Piercing Shell



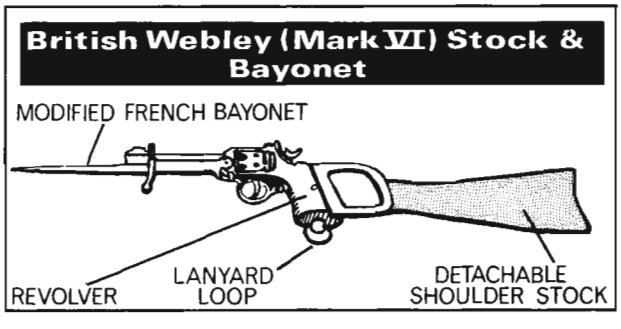

## Knuckleduster Knife




## Typical Incendiary (Thermite) Shell



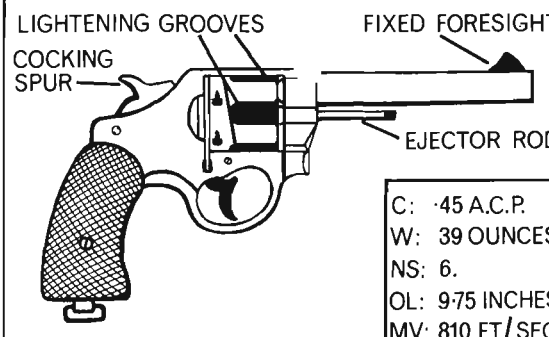

## British Webley (Mark VI) Stock & Bayonet



# EIGHT IMPORTANT PISTOLS AND REVOLVERS 1914 – 1918

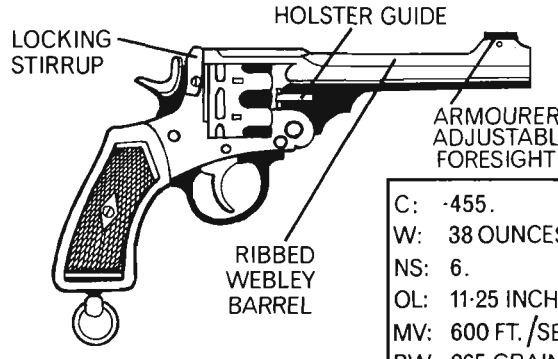
Abbreviations:
C = Calibre. OL = Overall length.
W = Weight. MV = Muzzle velocity.
NS = Number of shots. BW = Bullet weight.

## United States COLT M1917



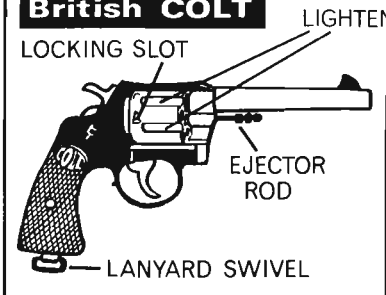

C: ·45 A.C.P.
W: 39 OUNCES.
NS: 6.
OL: 9·75 INCHES.
MV: 810 FT./SEC.
BW: 230 GRAINS.

## British WEBLEY Mark VI



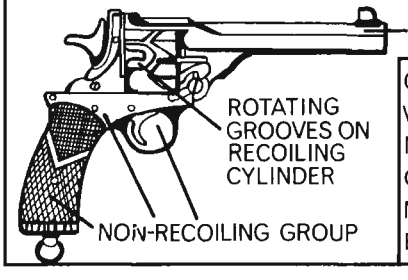

C: ·455.
W: 38 OUNCES.
NS: 6.
OL: 11·25 INCHES.
MV: 600 FT./SEC.
BW: 265 GRAINS.

## British COLT



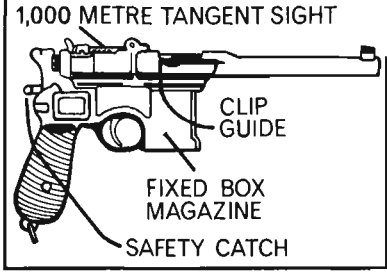

C: ·455.
W: 39 OUNCES.
NS: 6.
OL: 9·75 INCHES.
MV: 600 FT./SEC.
BW: 265 GRAINS.

## British WEBLEY-FOSBERY



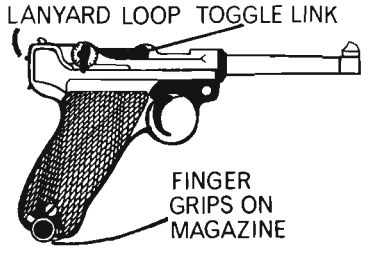

C: ·455.
W: 38 OUNCES.
NS: 6.
OL: 11·5 INCHES.
MV: 600 FT./SEC.
BW: 265 GRAINS.

## German MAUSER




C: 7·63.
W: 45 OUNCES.
NS: 10.
OL: 12 INCHES.
MV: 1420 FT./SEC.
BW: 86 GRAINS.

## German LUGER (Parabellum)



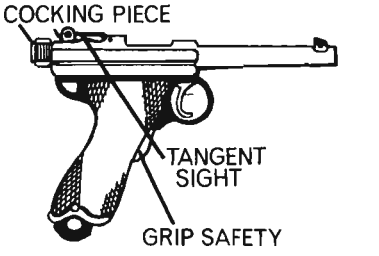

C: 9 PARABELLUM.
W: 30 OUNCES.
NS: 7.
OL: 8·75 INCHES.
MV: 1,150 FT./SEC.
BW: 125 GRAINS.

## Italian GLISENTI




C: 9 GLISENTI.
W: 30 OUNCES.
NS: 7.
OL: 8·5 INCHES.
MV: 900 FT./SEC.
BW: 125 GRAINS.

## Japanese NAMBU

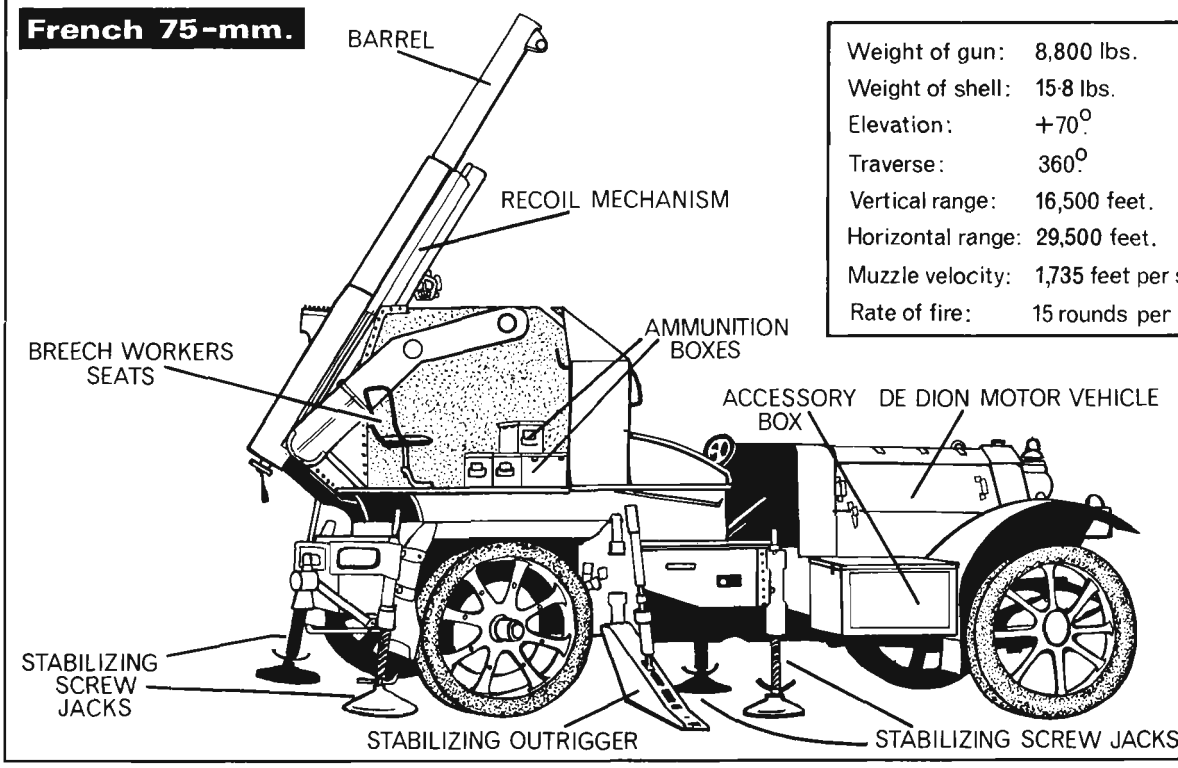



C: 8 NAMBU.
W: 30 OUNCES.
NS: 8.
OL: 10 INCHES.
MV: 950 FT./SEC.
BW: 102 GRAINS.

©Arthur Banks 1973

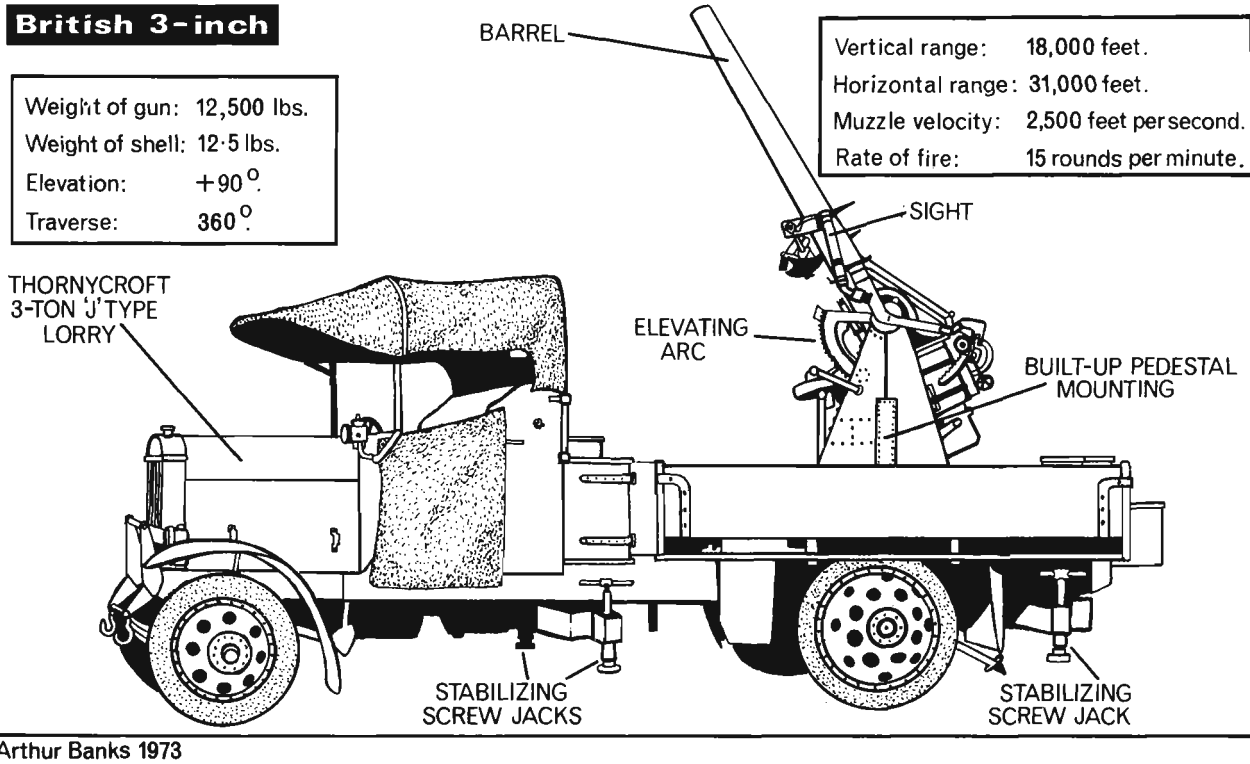
# FIVE IMPORTANT ANTI-AIRCRAFT GUNS 1914-1918

## French 75-mm.




| | |
|---|---|
| Weight of gun: | 8,800 lbs. |
| Weight of shell: | 15·8 lbs. |
| Elevation: | +70°. |
| Traverse: | 360°. |
| Vertical range: | 16,500 feet. |
| Horizontal range: | 29,500 feet. |
| Muzzle velocity: | 1,735 feet per second. |
| Rate of fire: | 15 rounds per minute. |

## British 3-inch



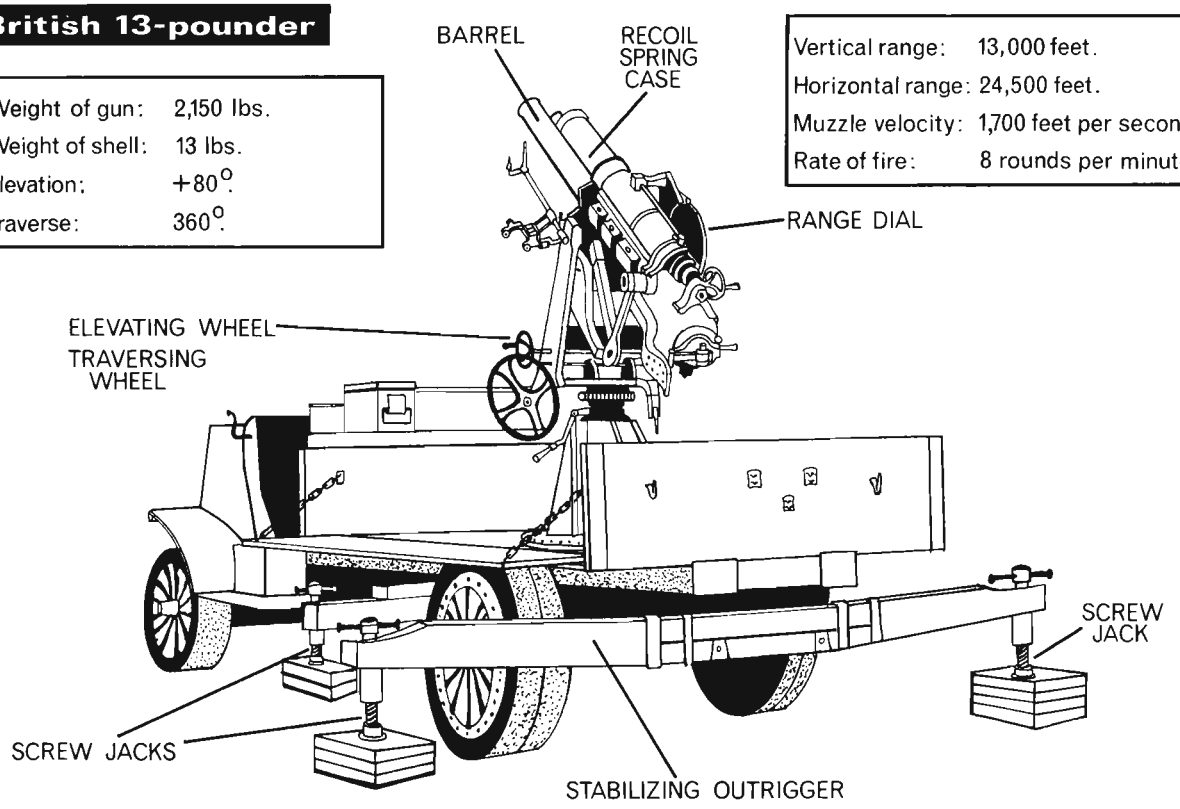

| | |
|---|---|
| Weight of gun: | 12,500 lbs. |
| Weight of shell: | 12·5 lbs. |
| Elevation: | +90°. |
| Traverse: | 360°. |
| Vertical range: | 18,000 feet. |
| Horizontal range: | 31,000 feet. |
| Muzzle velocity: | 2,500 feet per second. |
| Rate of fire: | 15 rounds per minute. |

© Arthur Banks 1973

## British 13-pounder

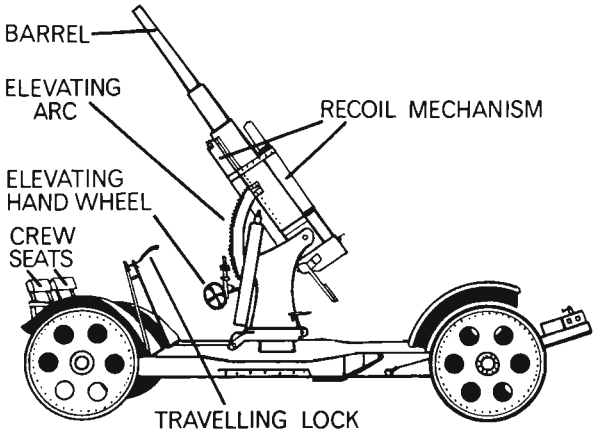
| | |
|---|---|
| Weight of gun: | 2,150 lbs. |
| Weight of shell: | 13 lbs. |
| Elevation: | +80°. |
| Traverse: | 360°. |

| | |
|---|---|
| Vertical range: | 13,000 feet. |
| Horizontal range: | 24,500 feet. |
| Muzzle velocity: | 1,700 feet per second. |
| Rate of fire: | 8 rounds per minute. |




## German 8·8-cm.

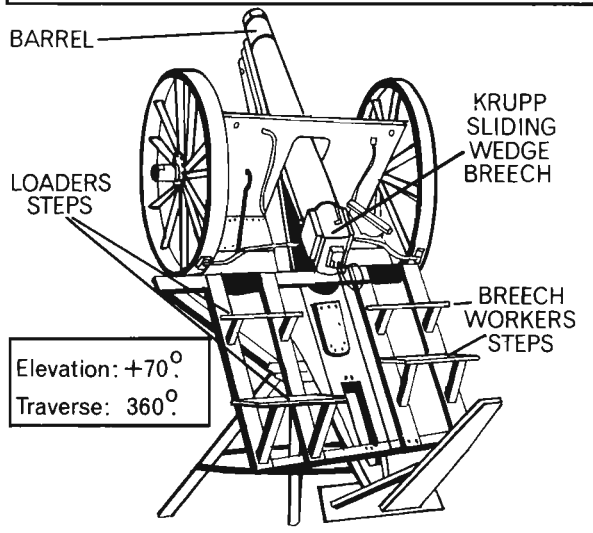
| | |
|---|---|
| Elevation: | +70° |
| Traverse: | 360° |
| Weight of gun: | 6,700 lbs. |
| Vert. range: | 12,500 feet. |
| Weight of shell: | 21 lbs. |
| Horiz. range: | 35,500 feet. |




Muzzle velocity: 2,575 feet per second.
Rate of fire: 10 rounds per minute.

## German 7·7-cm.

| | |
|---|---|
| Weight of shell: | 15 lbs. |
| Vertical range: | 14,000 ft. |
| Weight of gun: | 3,675 lbs. |
| Horiz. range: | 26,000 ft. |




Muzzle velocity: 1,520 ft./sec. Rate of fire: 8 rds. per min.

# THE WAR AT SEA

During the first decade of the century a radical change in warship construction led to the development of 'all big gun' battleships. The first British vessel of this type was H.M.S. *Dreadnought* (ten 12-inch guns and a speed of 21 knots), laid down in October 1905, launched February 1906, at sea by October 1906. The Dreadnoughts could outrange and outpace all previous battleships, which were soon made obsolete. Other countries followed Britain's lead: a German dreadnought, the *Nassau*, was launched in 1907. The Royal Navy in 1914 had twenty dreadnoughts or 'super-dreadnoughts' based in home waters: Germany, the second largest naval power in Europe, had fifteen. Everyone awaited a dreadnought Trafalgar. A difference in concepts of naval strategy postponed the clash. The Germans hoped to offset their numerical inferiority by splitting the British Grand Fleet by a feint, enabling their battle squadrons to fall on the enemy a portion at a time; the British, on the other hand, were content to use dreadnoughts as a distant deterrent, exercising naval supremacy in home waters from Scapa Flow, in the Orkneys. The prospect of a great naval battle receded.

Meanwhile, the British, French, Russian and Japanese navies were confronted with the problem of German cruisers in distant seas. The battle-cruiser *Goeben* and the cruiser *Breslau* succeeded in evading pursuit in the Mediterranean and took refuge at Constantinople, where their transference to the Turkish fleet played a considerable part in inducing the Turks to enter the war. The German Pacific Squadron (Spee) inflicted, off Coronel, the first defeat sustained by the Royal Navy since the 1812 War with America, sinking an outdated armoured cruiser and a light cruiser. Coronel was avenged at the Falkland Islands five weeks later, while the lone raider *Emden* was tracked down by the Australian cruiser *Sydney* in the Indian Ocean. The chivalrous seamanship of the commanders of the German surface vessels won high regard; but the development by the Germans of submarine warfare, and especially the increasing number of underwater attacks on merchantmen and passenger liners, aroused anger and resentment in Britain and the United States. On the other hand, the Americans also resented the British imposition of a naval blockade on Germany and her allies. British submarine activity was especially effective in the Sea of Marmara, off Constantinople, and in the Baltic.

In January 1915 the battle-cruisers of the Grand Fleet, under Beatty, intercepted Admiral Hipper's 'scouting group' off the Dogger Bank and pursued the Germans but lost contact after Beatty's flagship was immobilised. The German armoured cruiser *Blücher* was sunk, and the Germans concentrated for the remainder of the year on U-boat activity. In February 1916 Admiral Scheer took command of the High Seas Fleet at Wilhelmshaven, and planned to tempt Beatty into another battle-cruiser engagement, with a pack of U-boats waiting to intercept the dreadnoughts of the Grand Fleet (Jellicoe) as they moved south. Surface, submarine and Zeppelin activity was, however, not as co-ordinated as Scheer wished. The British were remarkably well-informed of German movements (by wireless interception), and were prepared for a major battle in May 1916.

Jutland, the largest naval action in world history, was essentially a battle of feints and manoeuvres. It involved 151 British warships and 99 German vessels although the dreadnoughts themselves (28 British, 16 German) were in action against each other for only twenty minutes during the evening of 31 May. Beatty, realising the German cruisers were seeking to draw his squadron towards the heavy guns of the High Seas Fleet, himself tried to lure the Germans towards Jellicoe's squadron. The British battle-cruisers suffered heavily from accurate German fire, but tactically trapped Scheer into allowing the Grand Fleet to get between his vessels and his home port. Jellicoe hoped to bring Scheer to battle next morning, but the Germans evaded him at night, partly through sheer speed and partly through better training for a running battle by night. British casualties and losses were far higher than those of the Germans at Jutland; but it was harder for the Germans to fill the gaps in their fleet. Strategically Jutland was a British victory, for it reinforced the Kaiser's inclination to preserve his navy

intact, rather than risk another encounter with the Grand Fleet.

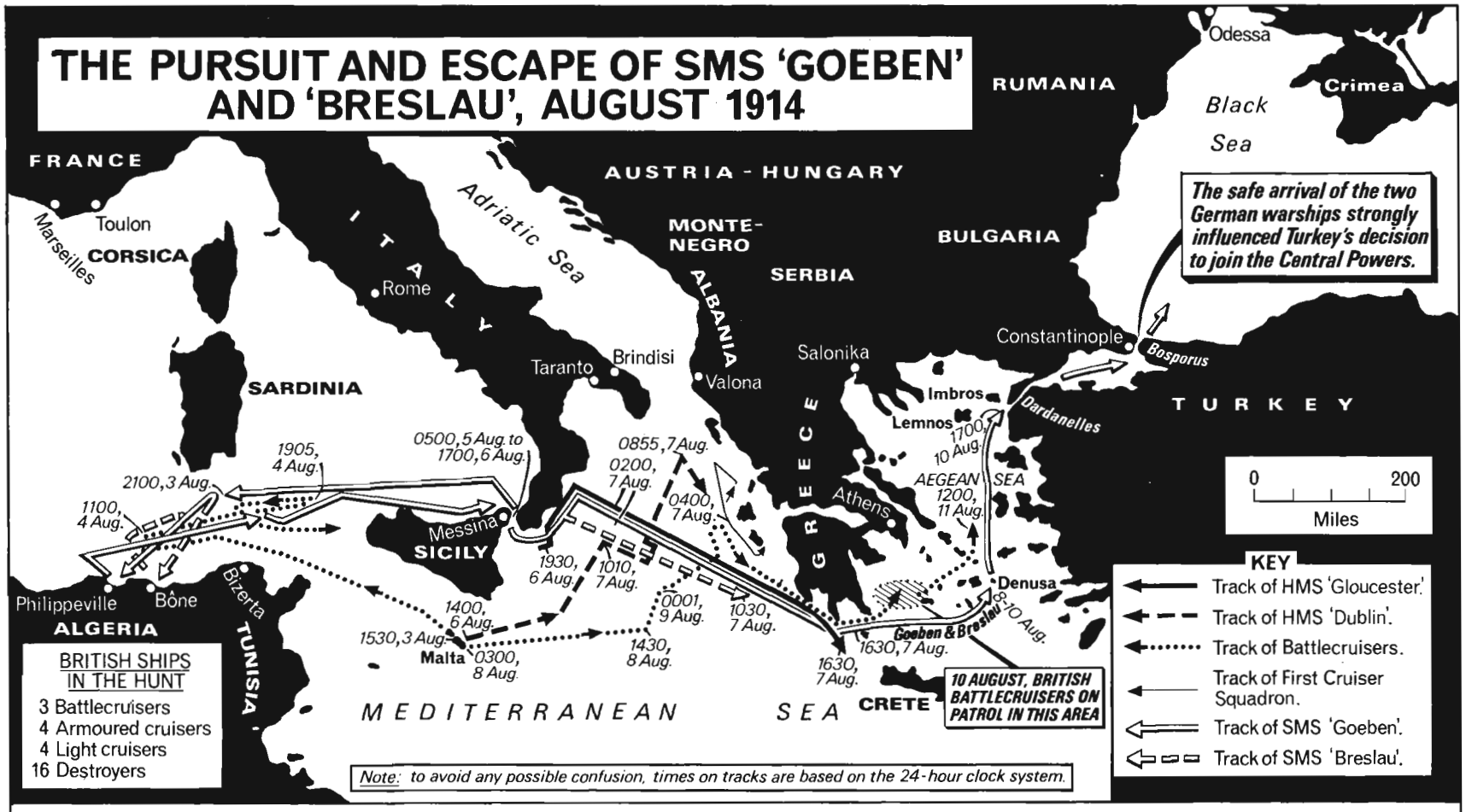
After Jutland there was little surface conflict between rival warships. The Austro-Hungarian fleet made a number of sorties on the barrage which the Allies sought to establish across the Strait of Otranto, so as to seal off the Adriatic from the Mediterranean; and there were occasional alarms in the Black Sea, where the Russian and Turkish fleets had already clashed briefly off the southern tip of the Crimea in November 1914. It is often said that the German High Seas Fleet remained inactive off Heligoland and Kiel for the remainder of the War until a break in morale led to mutiny in 1918. Yet, though the Kaiser was opposed to offensive action, Scheer took the Fleet to sea again in the third week of August 1916 and, for the last time, in April 1918. These sweeps seem, however, to have been intended as diversions rather than as preliminaries to another battle, and no contact was made with British surface vessels. It should, of course, be noted (page 276) that the rival fleets were increasingly hemmed in by minefields.

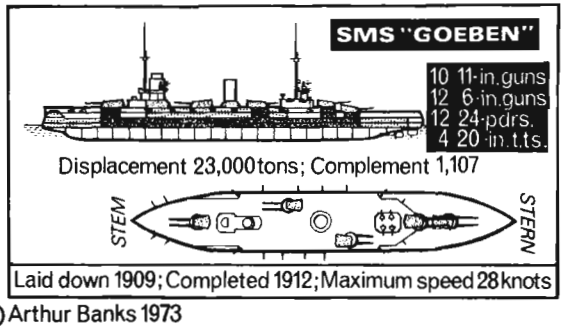
Both the British and German Admiralties had anticipated that attempts would be made in any war to strangle the economy of a country, and cut off its food supply, by means of a blockade. The British system (for which a separate Government department, the Ministry of Blockade, was eventually established early in 1916) was basically an extension of the controversial rights exercised during the Napoleonic Wars: an Order in Council of March 1915 authorising the seizure by British warships of goods destined for Germany by way of a neutral port provoked similar hostility to the notorious Orders in Council of 1807, although German submarine ruthlessness assuaged the wrath of some neutral countries. Neither the British nor the Germans had worked out the implications of using the submarine as a destroyer of commerce; but by the spring of 1916 the U-boat was recognised in Berlin as the most effective of all naval weapons. Attempts were made later that summer to counter the U-boat menace with new minefields, increased defensive nets and disguised 'mystery ships' (Q-ships). Yet the tonnage of merchant shipping sunk by U-boat averaged 300,000 a month in the last quarter of 1916 and rose dramatically in February when the Germans began unrestricted submarine warfare. Over half a million tons of British merchant shipping was lost in April 1917, one in four vessels leaving British ports never returning there again. Corn supplies in England were down to six weeks.

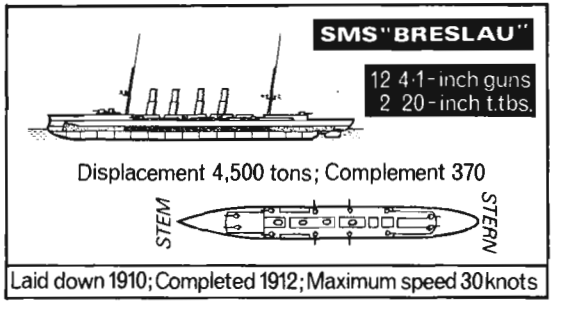
The U-boat menace was mastered by a return to the eighteenth century concept of convoys, imposed on a reluctant Admiralty by the Prime Minister Lloyd George, in May 1917 (see page 266). The addition of American naval strength to Atlantic patrols helped ensure the effectiveness of convoying. At the same time, new anti-submarine techniques were perfected, notably the depth-charge. The Admiralty remained concerned over the use which the Germans made of the Belgian ports as U-boat bases. In April 1918 a raid was made on Zeebrugge—the prototype of amphibious commando raids in the Second World War—which sought to block the canal to Bruges, where there were docking facilities for destroyers and as many as 30 U-boats. An attempt was also made on the Bruges–Ostend Canal. The Zeebrugge Raid (for which eight Victoria Crosses were awarded) was only partially successful and the accompanying raid on Ostend (which won another three Victoria Crosses) was so disappointing that a second assault had to be made a fortnight later. It, too, proved largely abortive. But the Zeebrugge-Ostend operations sealed off the U-boats and destroyers at Bruges, even if the shallow-draught boats were soon able to move again out to sea. The chief effect of the raids was as a fillip to lagging morale in Britain.

A final plan to challenge the Grand Fleet in the hopes of securing better Armistice terms in 1918 came to nothing when the German naval ratings mutinied, first at the fleet anchorage off Wilhelmshaven on 29 October and later at Kiel. It was the beginning of the revolution which, within a fortnight, turned Germany from an autocracy to a republic.

# THE PURSUIT AND ESCAPE OF SMS 'GOEBEN' AND 'BRESLAU', AUGUST 1914

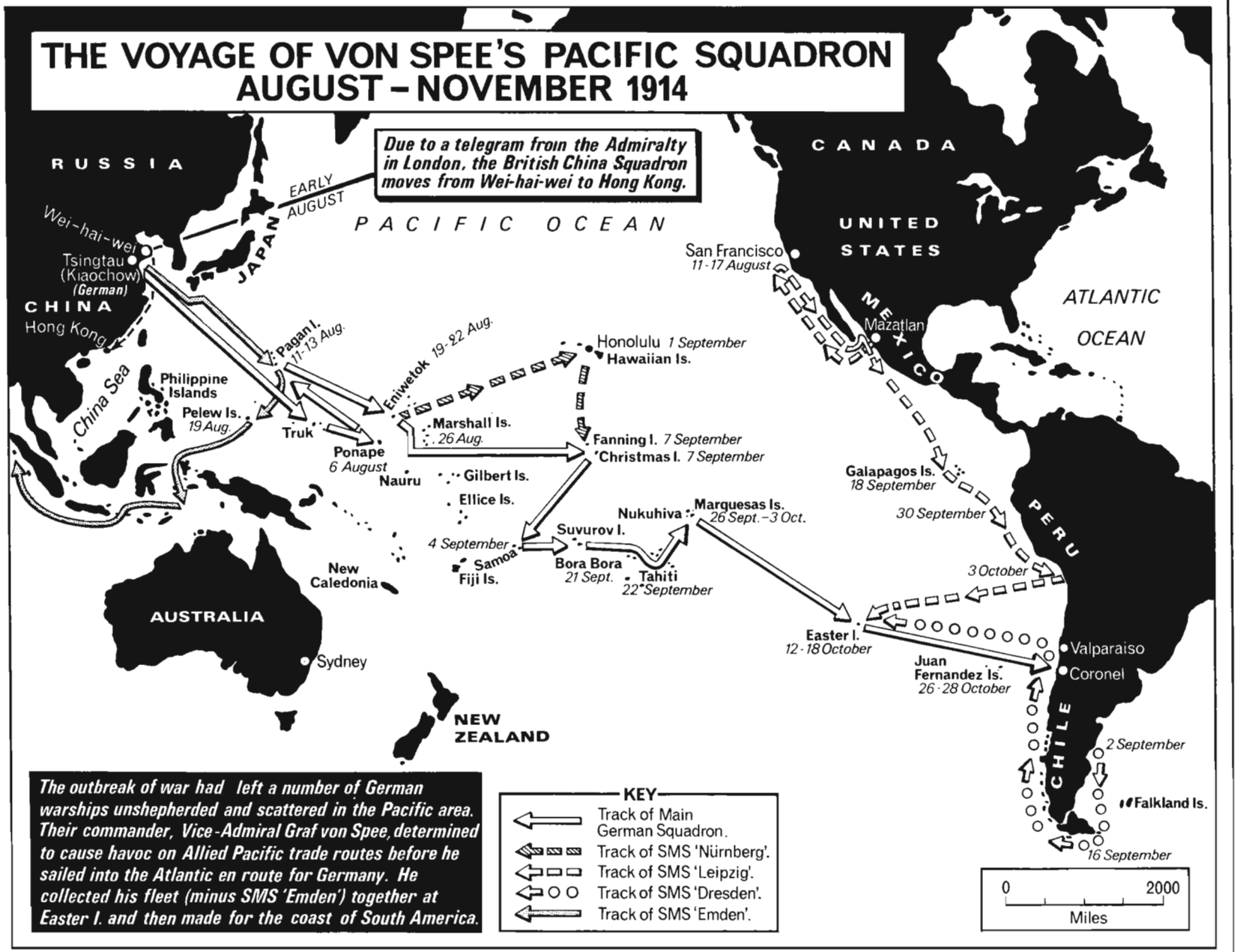


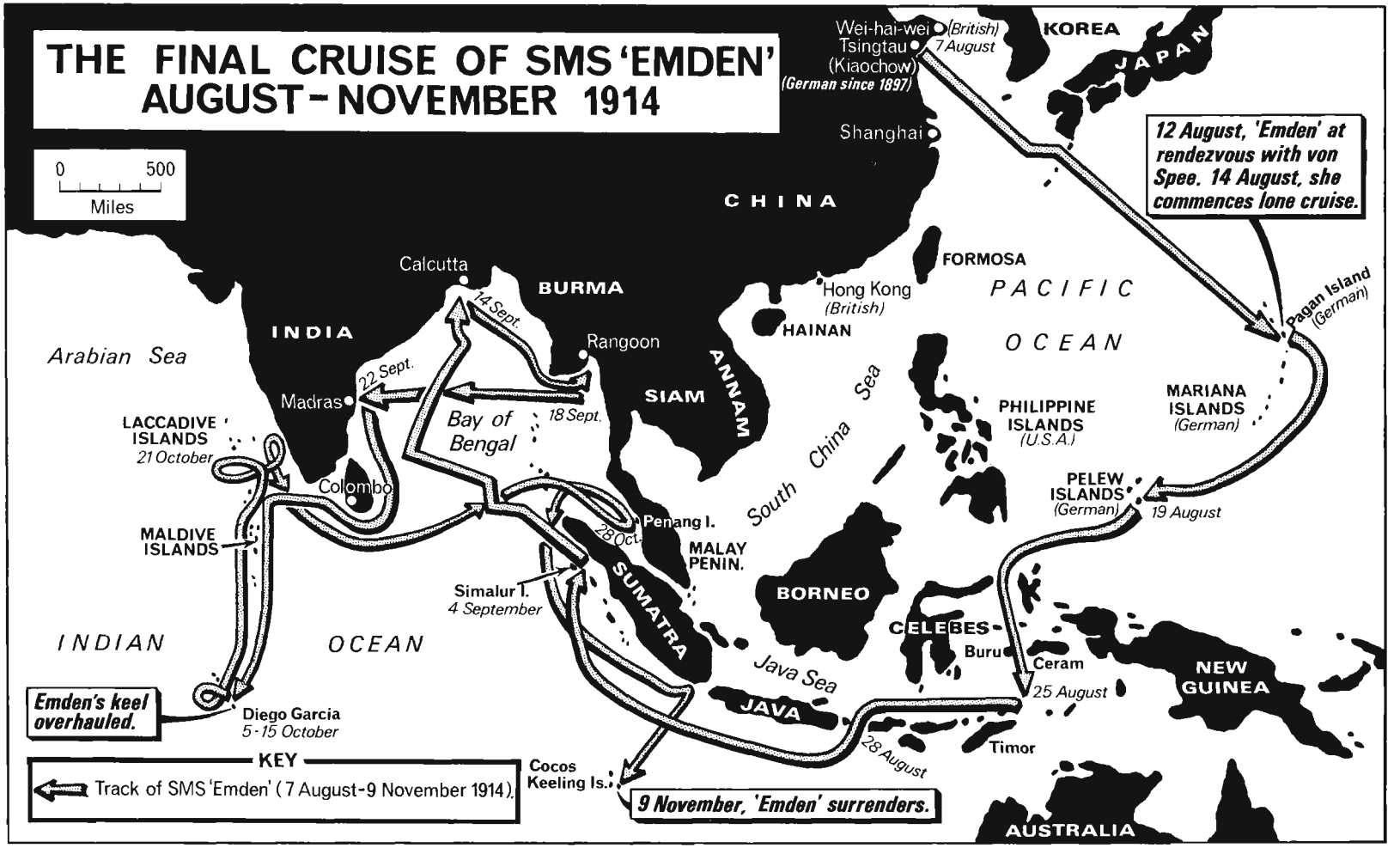




*The battlecruiser 'Goeben' and the light cruiser 'Breslau', were German warships situated in the Mediterranean area at the outbreak of the war. After attempting to disrupt French troop convoys between Africa and France by bombarding Algerian ports, they were hunted by British naval units from Messina to the Dardanelles. To escape capture, they were sold to Turkey for a sum of £3,800,000, and then used against Russia.*

© Arthur Banks 1973

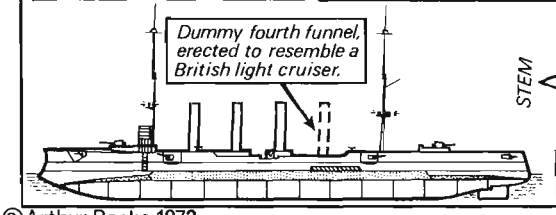

THE VOYAGE OF VON SPEE'S PACIFIC SQUADRON
AUGUST – NOVEMBER 1914
Due to a telegram from the Admiralty in London, the British China Squadron moves from Wei-hai-wei to Hong Kong.
EARLY AUGUST
RUSSIA
JAPAN
PACIFIC OCEAN
CANADA
UNITED STATES
ATLANTIC OCEAN
MEXICO
PERU
CHILE
CHINA
Wei-hai-wei
Tsingtau (Kiaochow) (German)
Hong Kong
China Sea
Philippine Islands
Pelew Is. 19 Aug.
Pagan I. 11-13 Aug.
Truk
Ponape 6 August
Nauru
Gilbert Is.
Ellice Is.
Eniwetok 19-22 Aug.
Marshall Is. 26 Aug.
Honolulu 1 September
Hawaiian Is.
Fanning I. 7 September
Christmas I. 7 September
4 September
Samoa
Fiji Is.
New Caledonia
Suvurov I.
Bora Bora 21 Sept.
Tahiti 22 September
Nukuhiva
Marquesas Is. 26 Sept.–3 Oct.
30 September
Galapagos Is. 18 September
3 October
Easter I. 12-18 October
Juan Fernandez Is. 26-28 October
Valparaiso
Coronel
2 September
Falkland Is.
16 September
San Francisco 11-17 August
Mazatlan
AUSTRALIA
Sydney
NEW ZEALAND
The outbreak of war had left a number of German warships unshepherded and scattered in the Pacific area. Their commander, Vice-Admiral Graf von Spee, determined to cause havoc on Allied Pacific trade routes before he sailed into the Atlantic en route for Germany. He collected his fleet (minus SMS 'Emden') together at Easter I. and then made for the coast of South America.
KEY
Track of Main German Squadron.
Track of SMS 'Nürnberg'.
Track of SMS 'Leipzig'.
Track of SMS 'Dresden'.
Track of SMS 'Emden'.
0
2000
Miles

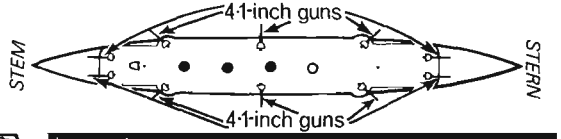
# THE FINAL CRUISE OF SMS 'EMDEN' AUGUST–NOVEMBER 1914




## SMS "EMDEN"

Laid down 1906; Completed 1908; Displacement 3,600 tons; Top speed 25 knots



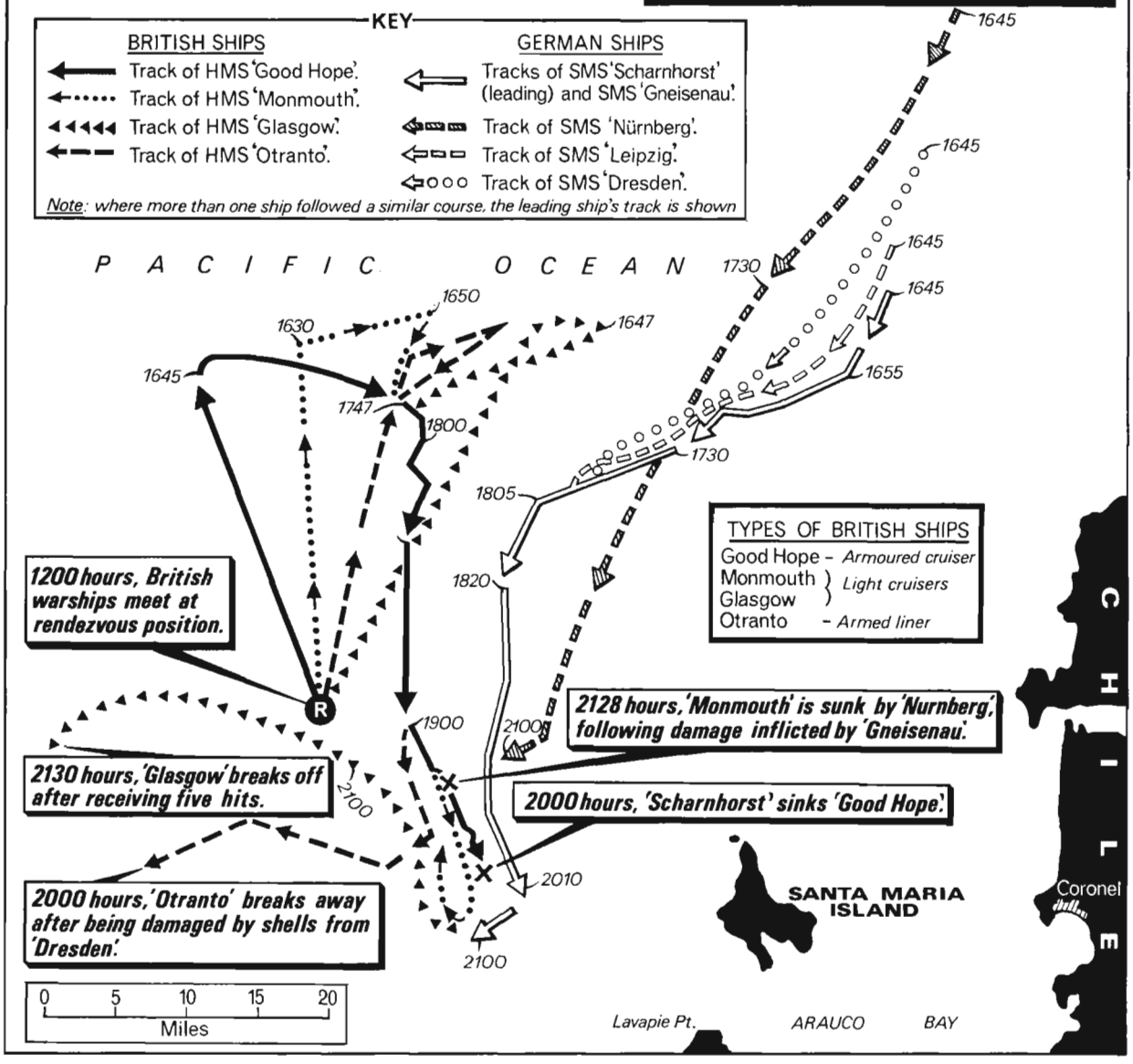

'Emden', complement 321, carried an armament of ten 4·1-inch guns, eight 5-pounders & two 17·7-in. t.tbs.

*'Emden', a Dresden-class light cruiser, was employed as a lone commerce raider in Eastern waters. During September and October, she captured 19 British merchant ships, bombarded Madras, and sank a Russian cruiser and a French destroyer. On 9 November, attempting to destroy the Cocos Keeling wireless station, she was engaged by HMAS 'Sydney'. Forced ashore half-sunk, 'Emden' surrendered after losing 111 men.*

©Arthur Banks 1973

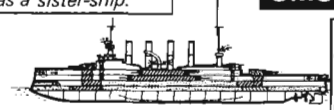
# THE BATTLE OF CORONEL 1 NOVEMBER 1914

*The Battle of Coronel resulted in a German victory. It was the first major British naval reverse for over a century, and command of the sea from Panama to Cape Horn, passed to Germany.*



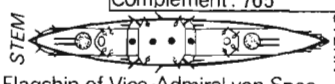

Note: SMS 'Gneisenau' was a sister-ship.

## SMS "SCHARNHORST"



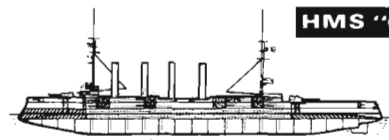
Laid down: 1905
Completed: 1907
Max speed: 21 knots
Displacem't: 11,600 tons
Complement: 765

Eight 8·2-inch guns
Six 6-inch guns
Twenty 24-pdr. guns
Four 18-inch torp.tubes



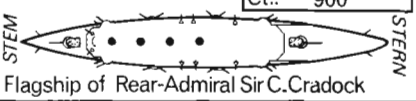

Flagship of Vice-Admiral von Spee

## HMS "GOOD HOPE"



L.d.: 1899
Cd.: 1902
M.s.: 24 knots
Dis.: 14,100 tons
Ct.: 900

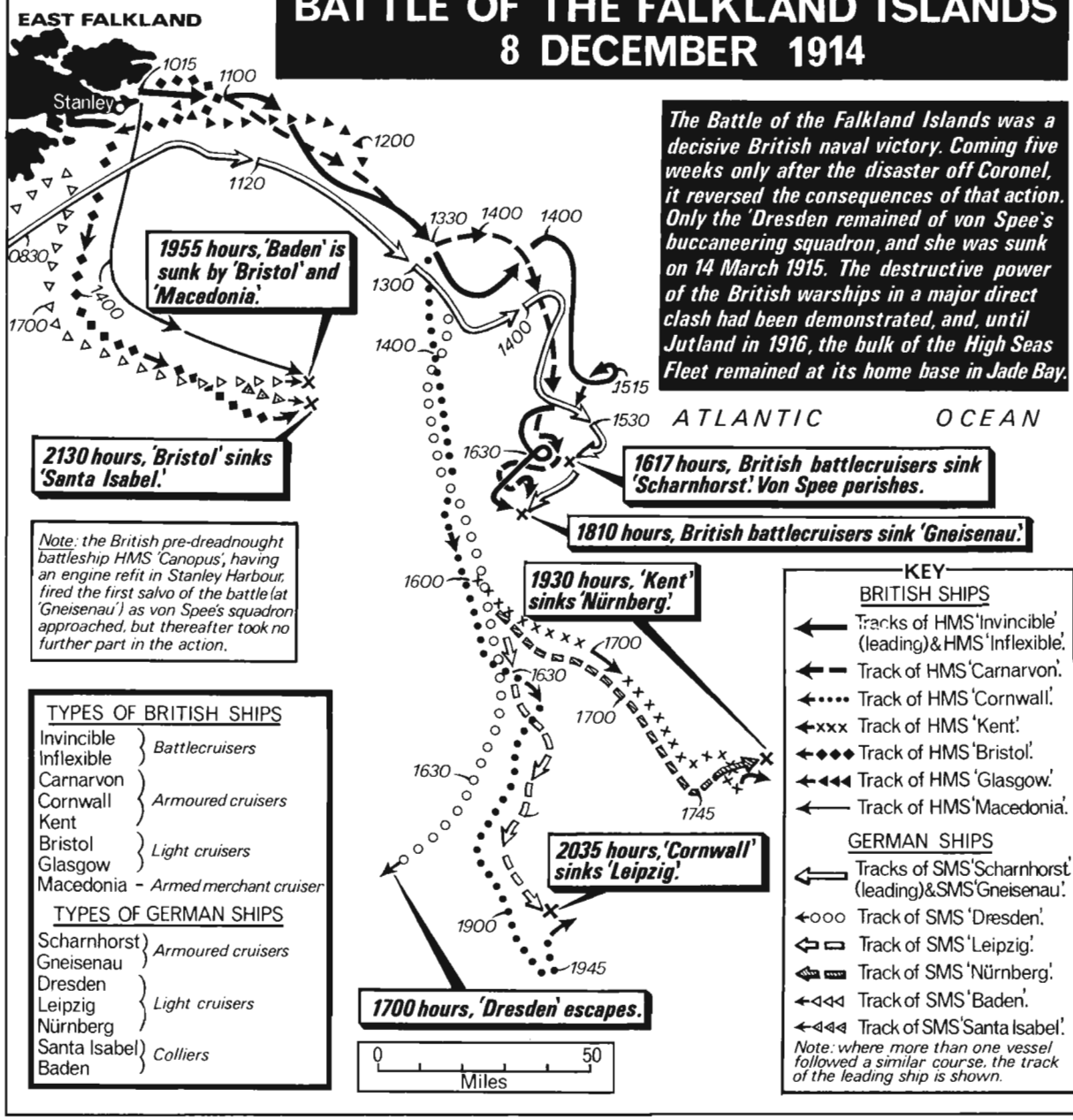
Two 9·2-in. guns
Sixteen 6-in. guns
Twelve 12-pdrs.
Three 3-pdrs.
Two 18-in. t.tubes




Flagship of Rear-Admiral Sir C. Cradock

© Arthur Banks 1973

# BATTLE OF THE FALKLAND ISLANDS
## 8 DECEMBER 1914




*The Battle of the Falkland Islands was a decisive British naval victory. Coming five weeks only after the disaster off Coronel, it reversed the consequences of that action. Only the 'Dresden remained of von Spee's buccaneering squadron, and she was sunk on 14 March 1915. The destructive power of the British warships in a major direct clash had been demonstrated, and, until Jutland in 1916, the bulk of the High Seas Fleet remained at its home base in Jade Bay.*

*Note: the British pre-dreadnought battleship HMS 'Canopus', having an engine refit in Stanley Harbour, fired the first salvo of the battle (at 'Gneisenau') as von Spee's squadron approached, but thereafter took no further part in the action.*

**KEY**

BRITISH SHIPS

- Tracks of HMS 'Invincible' (leading) & HMS 'Inflexible'.
- Track of HMS 'Carnarvon'.
- Track of HMS 'Cornwall'.
- Track of HMS 'Kent'.
- Track of HMS 'Bristol'.
- Track of HMS 'Glasgow'.
- Track of HMS 'Macedonia'.

GERMAN SHIPS

- Tracks of SMS 'Scharnhorst' (leading) & SMS 'Gneisenau'.
- Track of SMS 'Dresden'.
- Track of SMS 'Leipzig'.
- Track of SMS 'Nürnberg'.
- Track of SMS 'Baden'.
- Track of SMS 'Santa Isabel'.

*Note: where more than one vessel followed a similar course, the track of the leading ship is shown.*

**TYPES OF BRITISH SHIPS**

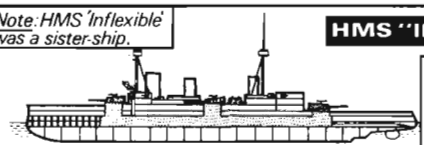
| | |
|---|---|
| Invincible, Inflexible | Battlecruisers |
| Carnarvon, Cornwall, Kent | Armoured cruisers |
| Bristol, Glasgow | Light cruisers |
| Macedonia | Armed merchant cruiser |

**TYPES OF GERMAN SHIPS**

| | |
|---|---|
| Scharnhorst, Gneisenau | Armoured cruisers |
| Dresden, Leipzig, Nürnberg | Light cruisers |
| Santa Isabel, Baden | Colliers |

*Note: HMS 'Inflexible' was a sister-ship.*

### HMS "INVINCIBLE"



| | |
|---|---|
| L.d.: | 1906 |
| Cd.: | 1908 |
| M.s.: | 26 knots |
| Dis.: | 17,250 tons |
| Ct.: | 750 |

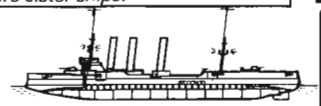
Eight 12-in. guns
Sixteen 4-in. gs.
Three 18-in. t.ts.




Flagship of Vice-Admiral Sir D. Sturdee

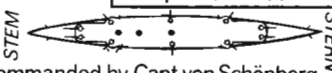
*Note: SMS 'Dresden' and SMS 'Leipzig' were sister-ships.*

### SMS "NÜRNBERG"



| | |
|---|---|
| Laid down: | 1905 |
| Completed: | 1908 |
| Max. speed: | 26 knots |
| Displacement: | 3,450 tons |
| Complement: | 295 |

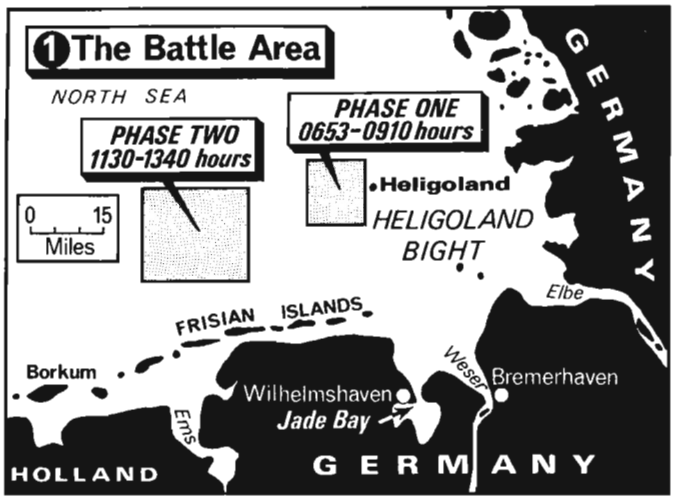
Ten 4·1-inch guns
Eight 5-pounders
Two 17·7-in. torp. tbs.



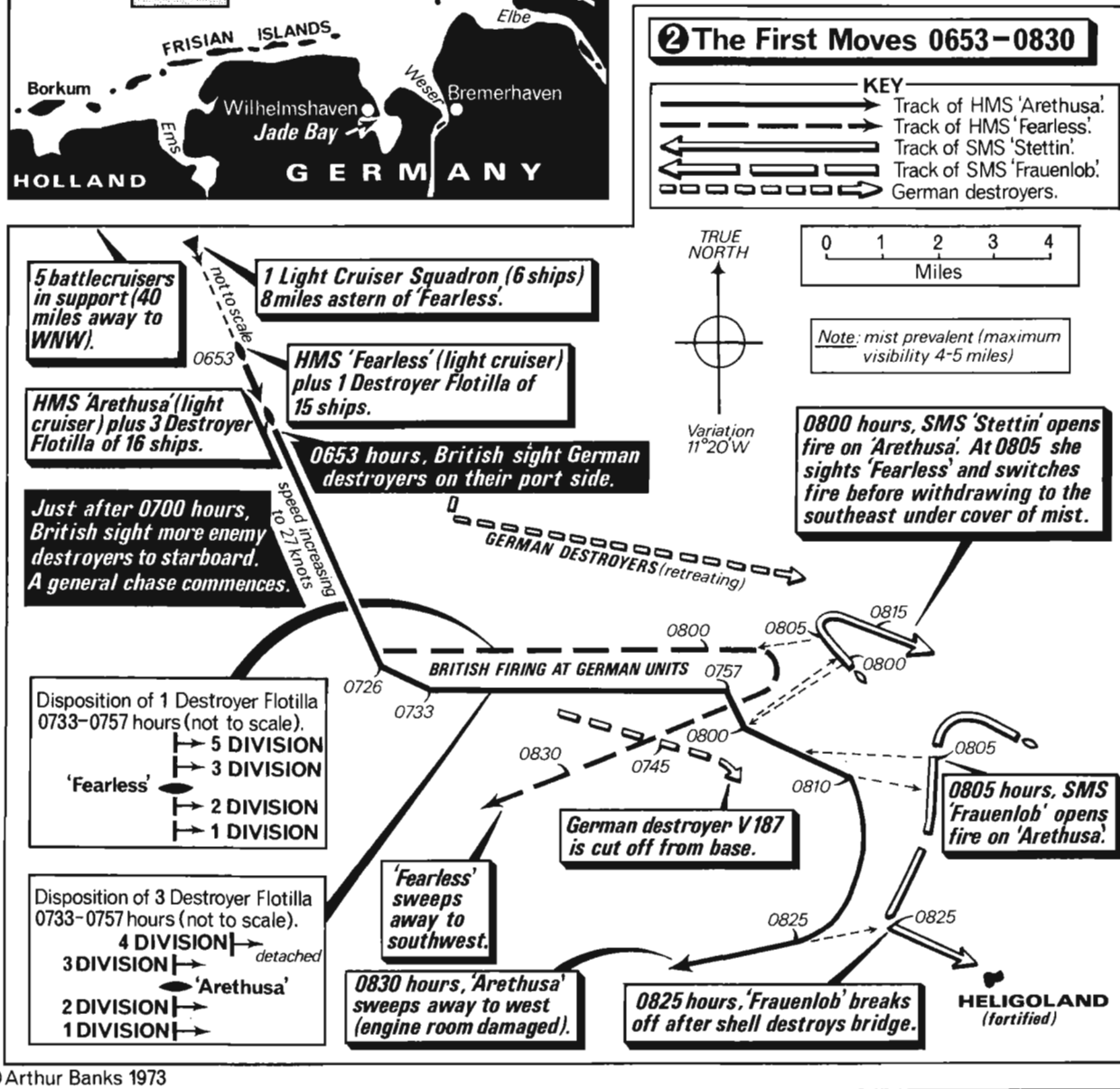

Commanded by Capt. von Schönberg

# THE BATTLE OF HELIGOLAND BIGHT 28 AUGUST 1914

NOTE: GREENWICH MEAN TIME HAS BEEN ADOPTED FOR TRACK CALCULATIONS.

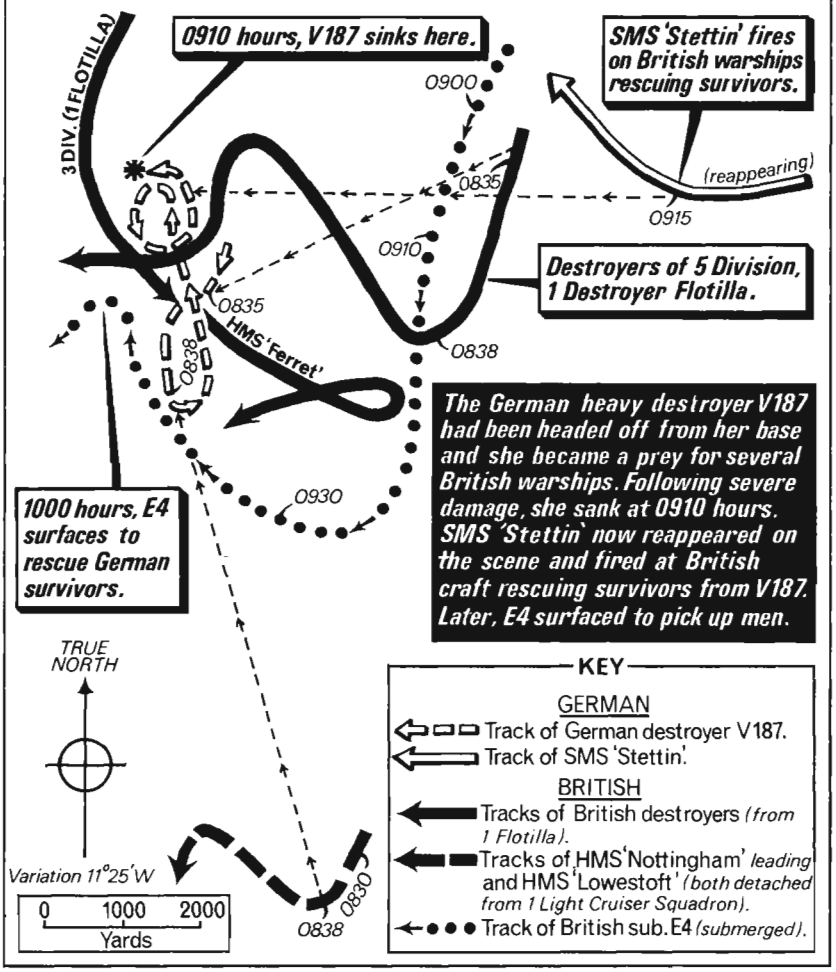



*The British plan was to utilise light cruisers and destroyers to raid German patrols in and around the Heligoland Bight with the object of enticing enemy capital ships to venture out from their safe haven at the Jade. British submarines armed with 18-inch torpedo tubes would wait beneath the surface for the Germans to emerge, supported by five battlecruisers and 1 Light Cruiser Squadron (comprising six ships of the long-range 'Town' type).*

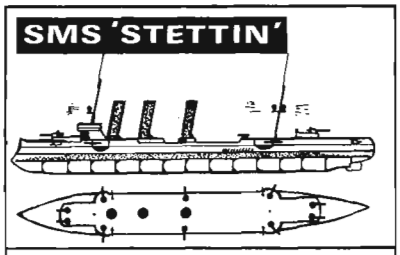



© Arthur Banks 1973

## ❸ The Sinking of German Destroyer V 187

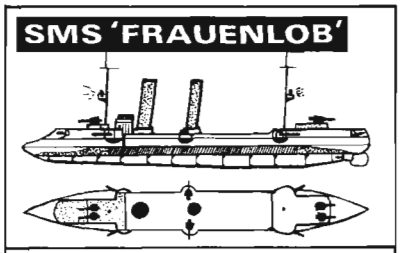



## SMS 'STETTIN'



| | | | |
|---|---|---|---|
| Ten 4·1-in. guns. | | Laid down: | 1905. |
| Eight 5-pdrs. | | Completed: | 1908. |
| Length: 360 feet. | | Complement: | 320. |
| Beam: 44 feet. | | Displacement: | 3,450 tons. |

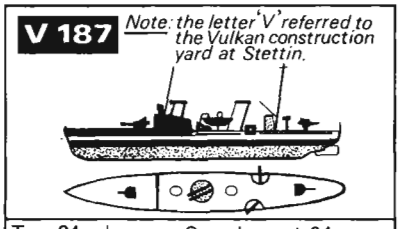
## SMS 'FRAUENLOB'



| | | | |
|---|---|---|---|
| Ten 4·1-in guns. | | Laid down: | 1900. |
| Ten 1-pdrs. | | Completed: | 1903. |
| Length: 330 feet. | | Complement: | 265. |
| Beam: 40 feet. | | Displacement: | 2,715 tons. |

## V 187

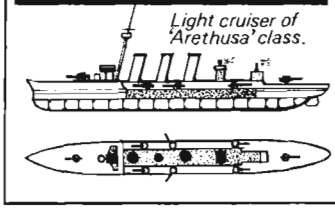
*Note: the letter 'V' referred to the Vulkan construction yard at Stettin.*



Two 24-pdr. guns. Complement: 84.
Three 18-in. torp. tbs. Max. speed: 35 knots.

## HMS 'ARETHUSA'

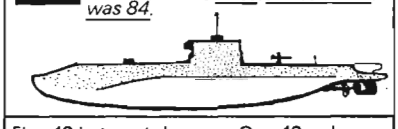
*Light cruiser of 'Arethusa' class.*



| | | | |
|---|---|---|---|
| Laid down: | 1912. | Two 6-inch guns | *(as built: later a third was added, replacing part of 4-inch armament).* |
| Completed: | 1914. | | |
| Length: | 450 feet. | | |
| Beam: | 39 feet. | Six 4-inch guns. | |
| Complement: | 319. | Two 3-inch guns. | |
| Displacement: | 3,512 tons. | Eight 21-inch torp. tbs | *(four above water).* |
| Max. speed: | 29 knots. | | |

## E 4

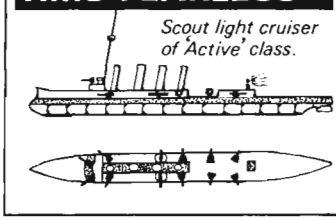
*Built by Vickers at Chatham, the 'E' referred to the class. The serial no. was 84.*



| | | | |
|---|---|---|---|
| Five 18-in. torp. tubes. | | One 12-pdr. gun. | |
| Displacement: | 700 tons. | Length: | 181 feet. |
| Complement: | 30. | Beam: | 22·5 feet. |

## HMS 'FEARLESS'

*Scout light cruiser of 'Active' class.*



| | | | |
|---|---|---|---|
| Laid down: | 1911. | Ten 4-inch guns. | |
| Completed: | 1913. | Four 3-pounder guns. | |
| Length: | 385 feet. | Two 21-inch torp. tbs. | |
| Beam: | 41·5 feet. | Armour: nil. | *(double skin amidships).* |
| Complement: | 320. | | |
| Displacement: | 3,440 tons. | Mean draught: | 14 feet. |
| Max. speed: | 26 knots. | H.P. | 18,000. |

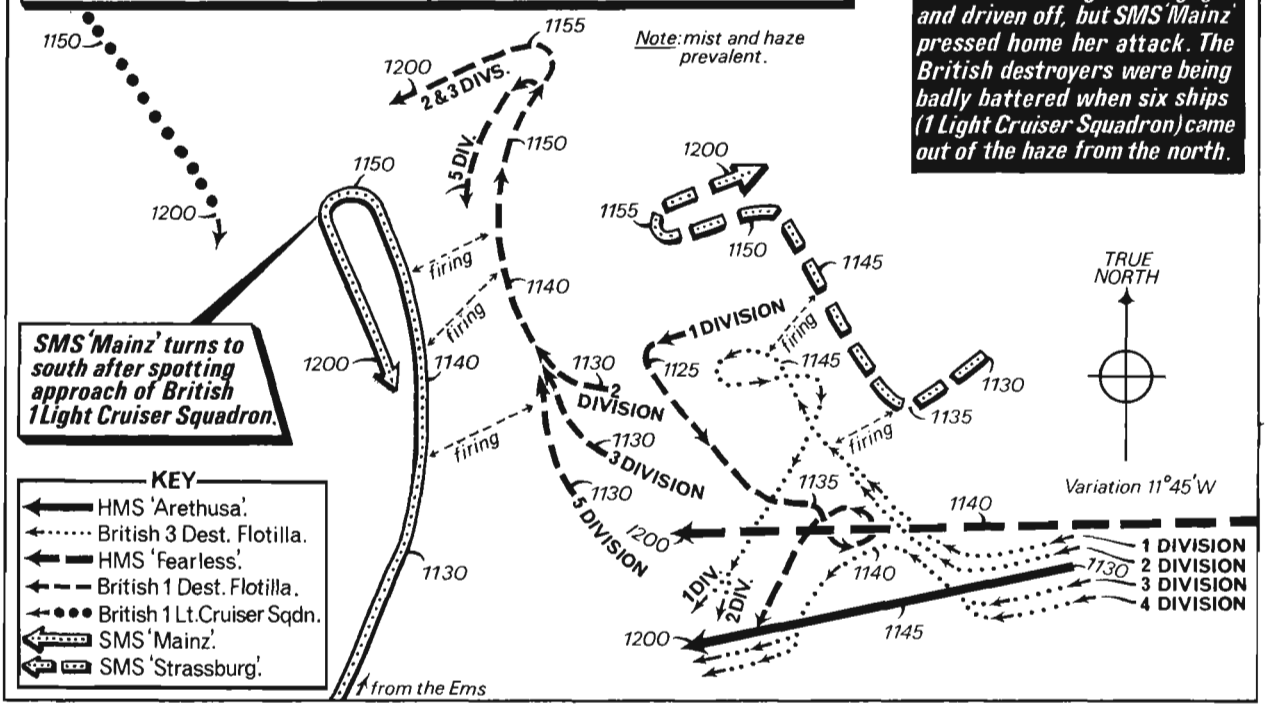
***The German battlecruisers were "trapped" behind the sand bar at the Jade and could not move out until high tide. Meanwhile, several cruisers were despatched at full speed to engage the enemy (unaware of the British battlecruisers being near at hand). SMS 'Strassburg' and SMS 'Mainz' were the first arrivals.***

# THE BATTLE OF HELIGOLAND BIGHT – continued

0 10,000 Yards

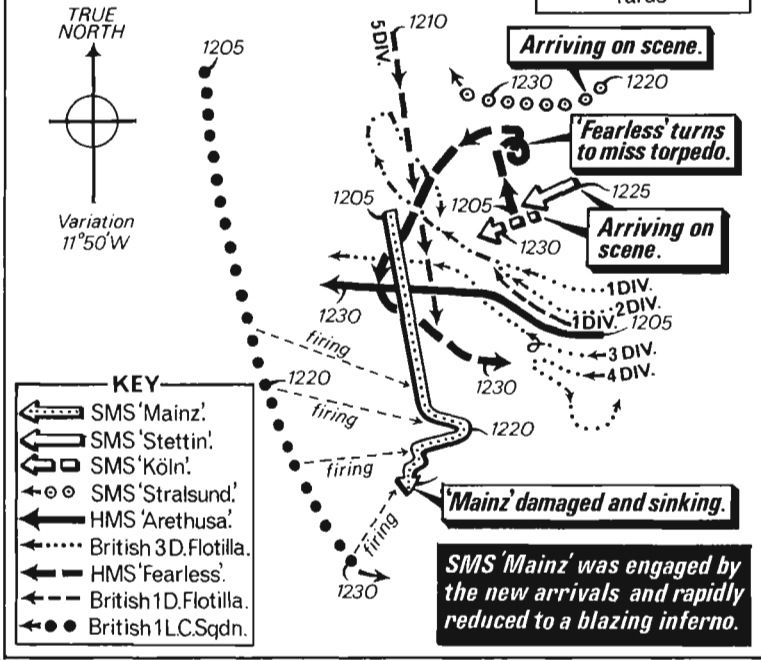
## ❹ Start of Phase Two: Operations 1130–1200 hours

***SMS 'Strassburg' was engaged and driven off, but SMS 'Mainz' pressed home her attack. The British destroyers were being badly battered when six ships (1 Light Cruiser Squadron) came out of the haze from the north.***

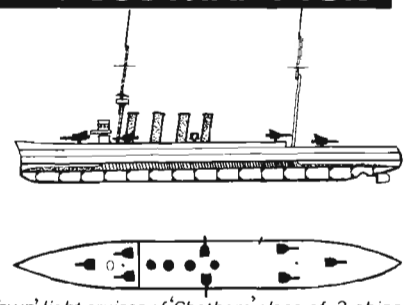



## ❺ Operations 1205–1230 hours

0 6,000 Yards




## HMS 'SOUTHAMPTON'



'Town' light cruiser of 'Chatham' class of 3 ships.

| | | |
|---|---|---|
| Laid down: | 1911. | Eight 6-inch guns. |
| Completed: | 1912. | Four 3-pounders. |
| Length: | 435 feet. | Two 21-in. torp.tbs. |
| Beam: | 48·75 feet. | Armour: 2-in. Deck. |
| Displacement: | 5,400 tons. | Turbines: 2 screws. |
| Complement: | 400. | H.P. 25,000. |
| Max. speed: | 26 knots. | Mean draught: 15 ft. |

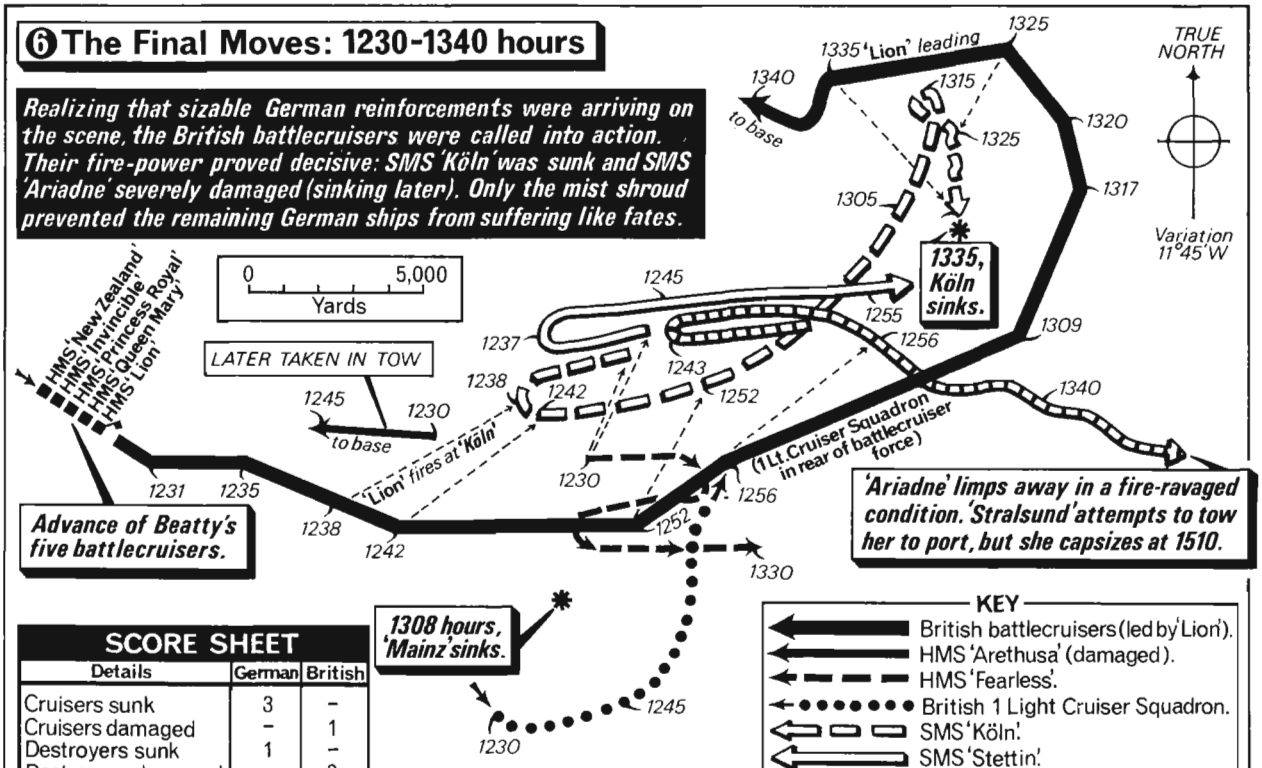
BRITISH 1 LIGHT CRUISER SQUADRON (six)

| | |
|---|---|
| HMS 'Southampton'. | HMS 'Lowestoft'. |
| HMS 'Birmingham'. | HMS 'Falmouth'. |
| HMS 'Nottingham'. | HMS 'Liverpool'. |

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## ⑥ The Final Moves: 1230-1340 hours

***Realizing that sizable German reinforcements were arriving on the scene, the British battlecruisers were called into action. Their fire-power proved decisive: SMS 'Köln' was sunk and SMS 'Ariadne' severely damaged (sinking later). Only the mist shroud prevented the remaining German ships from suffering like fates.***




**KEY**

- British battlecruisers (led by 'Lion').
- HMS 'Arethusa' (damaged).
- HMS 'Fearless'.
- British 1 Light Cruiser Squadron.
- SMS 'Köln'.
- SMS 'Stettin'.
- SMS 'Ariadne'.

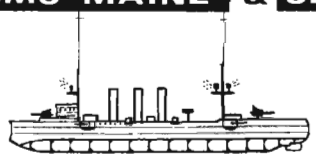
*Note: British destroyer tracks omitted for clarity.*

**SCORE SHEET**

| Details | German | British |
|---|---|---|
| Cruisers sunk | 3 | – |
| Cruisers damaged | – | 1 |
| Destroyers sunk | 1 | – |
| Destroyers damaged | – | 3 |
| Casualties | 1,000 | 75 |

*Note: for details of HMS 'Lion', see diagrams accompanying 'The Battle of Jutland.'*

## SMS 'MAINZ' & SMS 'KÖLN'

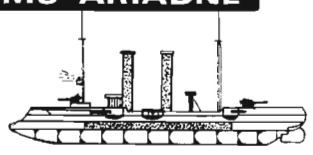


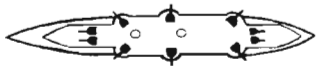


*Note: both ships were light cruisers of the 'Kolberg' class.*

| | | | |
|---|---|---|---|
| Laid down: 1907 } 'Mainz' | | Twelve 4·1-inch guns. | |
| Completed: 1909 } | | Four 5-pounder guns. | |
| Laid down: 1908 } 'Köln' | | Four machine guns. | |
| Completed: 1910 } | | Two 18-inch torpedo tubes. | |
| Length: | 428 feet. | Complement: | 375. |
| Beam: | 46 feet. | Max.speed: | 27 knots. |
| Displacement: | 4,350 tons. | Max.draught: | 18 feet. |

## SMS 'ARIADNE'

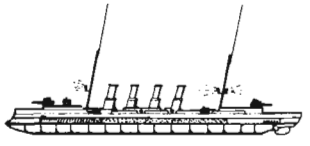




*Protected cruiser of 'Nymphe' class.*

| | | | |
|---|---|---|---|
| Laid down: | 1899. | Ten 4·1-inch guns. | |
| Completed: | 1901. | Fourteen 1-pounder guns. | |
| Length: | 328 feet. | Four machine guns. | |
| Beam: | 40 feet. | Two 17·7-inch torp.tubes. | |
| Complement: | 265. | Max.draught: | 17·25 feet. |
| Displacement: | 2,670 tons. | Armour: | 2-in.Deck *(amid.)*. |
| Max.speed: | 21 knots. | " | 1-in.Deck *(ends)*. |

## SMS 'STRASSBURG'



*Note: SMS 'Stralsund' was a sister-ship. (Similar details, including later armament alterations).*



*Light cruiser of 'Breslau' class.*

| | | | |
|---|---|---|---|
| Laid down: | 1910. | Twelve 4·1-inch guns. | |
| Completed: | 1912. | *(Note: later altered to seven 5·9-inch and two 3·4-inch A.A.guns).* | |
| Length: | 445 feet. | | |
| Beam: | 43 feet. | | |
| Complement: | 370. | Two 20-inch torp.tubes. | |
| Displacement: | 4,550 tons. | Mean draught: | 16·5 feet. |
| Max.speed: | 28 knots. | Armour: | 2-in.Deck *(amid.)*. |

# SUBMARINE WARFARE IN 1914

## 1 German U-boats in the North Sea

*At the outbreak of war, British naval policy was to contain the German High Seas Fleet in the North Sea, and, believing the German U-boat range to be limited, Scapa Flow was utilised as the main British base. But, as this map illustrates, German submarines were fully capable of ranging over the whole of the North Sea and into the English Channel. After the sighting (false) of a U-boat in Scapa Flow on 1 September, the British moved their base, first to Loch Ewe, and then to Lough Swilly. This proved to be so remote that Scapa Flow's defences were strengthened in order that the British Grand Fleet could return to the North Sea area.*

*Note: whereas the British regarded their submarine force as a minor part of their navy, the Germans looked upon their U-boat arm as a major striking force.*

*9 August, U 15 is sunk by British cruiser 'Birmingham'. Entire crew perish.*

*23 November, U 18 is rammed by British destroyers and compelled to surrender.*

*15 October, U 9 torpedoes and sinks British cruiser 'Hawke'. Only 21 British sailors survive.*

*5 September, U 21 torpedoes and sinks British cruiser 'Pathfinder'. Majority of British crew are lost.*

*12 August?, U 13 is lost in these waters. Mined?*

*22 September, U 9 sinks three British cruisers 'Aboukir,' 'Hogue' and 'Cressy'. 1,459 British sailors perish.*

*18 December, U 5 is mined and lost.*

*9 December?, U 11 is mined and lost.*

*31 October, U 27 torpedoes and sinks British seaplane-carrier 'Hermes'. Majority of crew are saved.*

*Early on 1 January 1915, U 24 torpedoes and sinks British pre-Dreadnought battleship 'Formidable'. 547 British sailors are lost.*

Fair Isle
Orkney Islands
MOVED IN SEPTEMBER
Scapa Flow
L. Ewe
Cromarty
MOVED IN OCTOBER
Rosyth
L. Swilly
SCOTLAND
IRELAND
NORTH SEA
IRISH SEA
WALES
ENGLAND
Harwich
ENGLISH CHANNEL
FRANCE
DEN-MARK
Heligoland
Jade Bay
Wilhelmshaven
GERMANY
HOLLAND

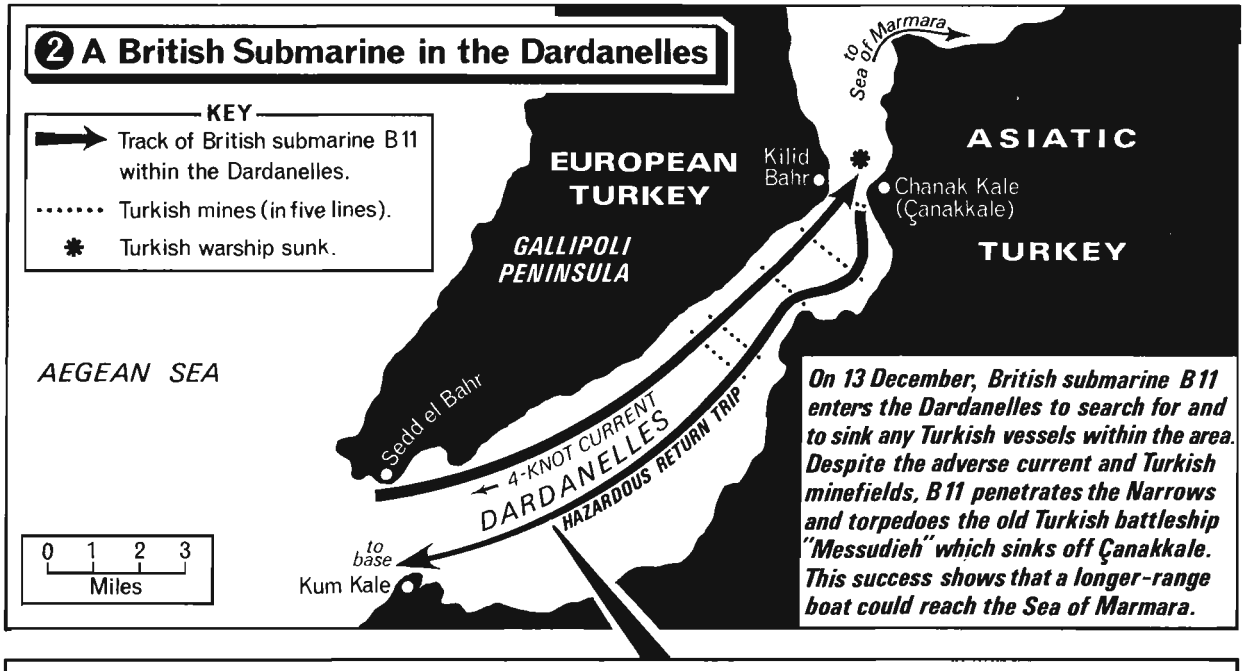
**KEY**
- Successful U-boat attacks.
- U-boats sunk, mined, or captured.
- German naval base.
- British naval bases.

60° N 58° N 56° N 54° N 52° N 50°

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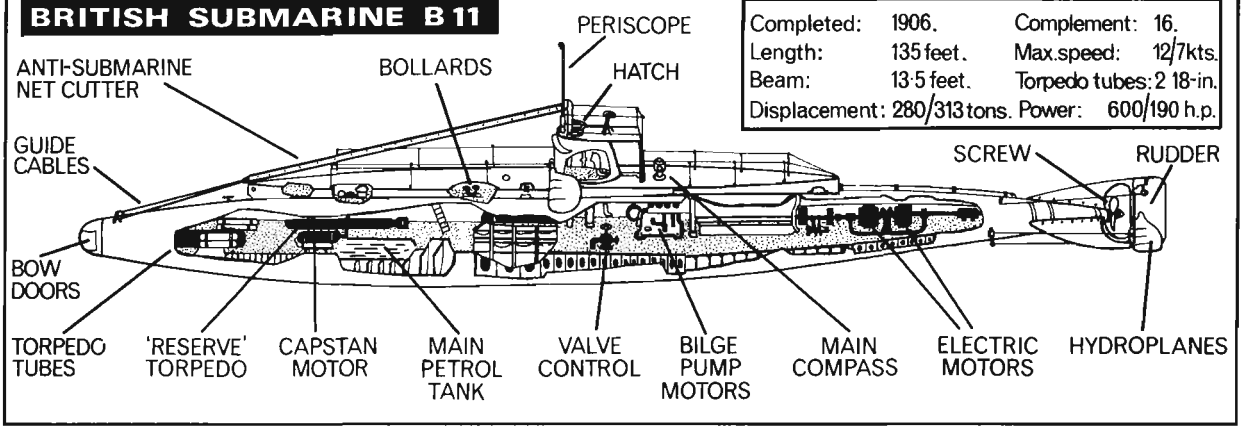
2°W 0° 2°E 4°E 6°E 8°E 10°E

## 2 A British Submarine in the Dardanelles



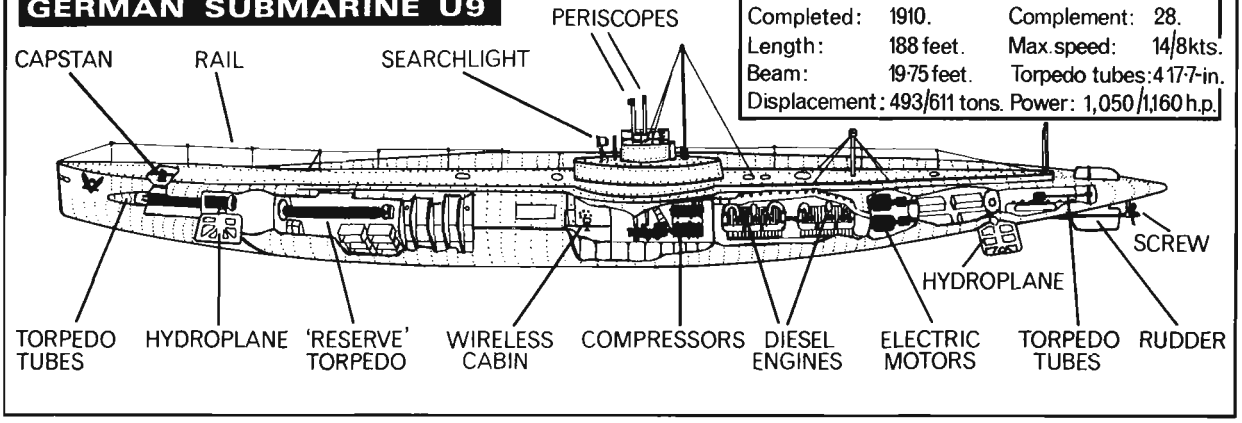

***On 13 December, British submarine B11 enters the Dardanelles to search for and to sink any Turkish vessels within the area. Despite the adverse current and Turkish minefields, B11 penetrates the Narrows and torpedoes the old Turkish battleship "Messudieh" which sinks off Çanakkale. This success shows that a longer-range boat could reach the Sea of Marmara.***

### BRITISH SUBMARINE B11




| | | | |
|---|---|---|---|
| Completed: | 1906. | Complement: | 16. |
| Length: | 135 feet. | Max. speed: | 12/7 kts. |
| Beam: | 13·5 feet. | Torpedo tubes: | 2 18-in. |
| Displacement: | 280/313 tons. | Power: | 600/190 h.p. |

### GERMAN SUBMARINE U9




| | | | |
|---|---|---|---|
| Completed: | 1910. | Complement: | 28. |
| Length: | 188 feet. | Max. speed: | 14/8 kts. |
| Beam: | 19·75 feet. | Torpedo tubes: | 4 17·7-in. |
| Displacement: | 493/611 tons. | Power: | 1,050/1,160 h.p. |

# BATTLE OF THE DOGGER BANK
# 24 JANUARY 1915

*Note: in August 1914, SMS 'Magdeburg' (a German light cruiser of the 'Breslau' class) was lost in the Baltic. The Russians recovered its signal code books and passed them to the Admiralty in London. British cypher experts utilised these for decoding purposes.*

## 1 Eve of Battle: The Rival Commanders and Dispositions

0 — 80 Miles

Commander-in-Chief, BRITISH GRAND FLEET

**JELLICOE**
1 Battleship
1 Light Cruiser
1 Destroyer

**BURNEY**
1 Battle Squadron
7 Battleships
1 Light Cruiser

**WARRENDER**
2 Battle Squadron
6 Battleships
1 Light Cruiser

**GAMBLE**
4 Battle Squadron
7 Battleships
1 Light Cruiser

**GOUGH-CALTHORPE**
2 Cruiser Squadron
3 Armoured Cruisers
PLUS
1 Light Cruiser, 21 Destroyers } 4 DEST. FLOT.

**ARBUTHNOT**
1 Cruiser Squadron
3 Arm'd Cruisers

**GRANT**
6 Cruiser Squadron
3 Arm'd Cruisers

**NAPIER**
2 Light Cruiser Squadron
3 Light Cruisers
PLUS
1 Light Cruiser, 21 Destroyers } 2 DEST. FLOT.

**Beatty**
1 Battlecruiser Squadron (BEATTY)
3 'fast' Battlecruisers (M.Speed 29 ks.)
2 Battlecruiser Squadron (MOORE)
2 'slow' Battlecruisers (M.Speed 26 ks.)

**PAKENHAM**
3 Cruiser Squadron
3 Arm'd Cruisers

**BRADFORD**
3 Battle Squadron
6 Battleships
1 Light Cruiser

**GOODENOUGH**
1 Light Cruiser Squadron
4 'Town' Light Cruisers

**TYRWHITT**
3 Light Cruisers
35 Destroyers

**KEYES**
2 Destroyers
4 Submarines

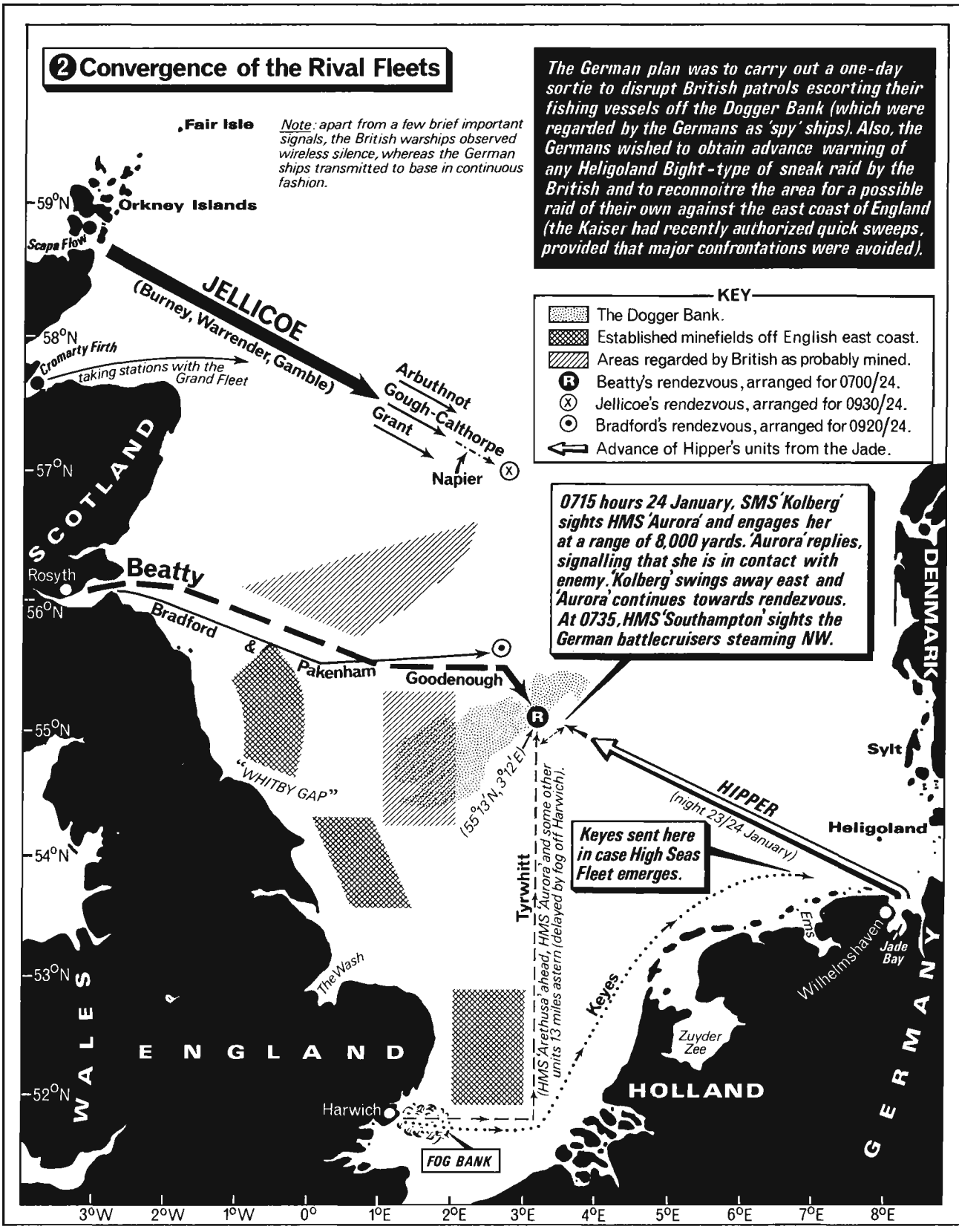
**HIPPER**
1 Scouting Group
3 Battlecruisers
1 Armoured Cruiser
2 Scouting Group
4 Light Cruisers
18 Destroyers

KEY
- British dispositions.
- German dispositions.
- British directional wireless stations.
- Naval bases.

*Cypher experts at Admiralty (Room 40) decode German sailing signals which have been intercepted by the British directional wireless stations.*

Orkney Islands
Ronaldsay
Scapa Flow
Cromarty Firth
Peterhead
SCOTLAND
Rosyth
Forth
May Island
Bamburgh
Flamborough Head
IRISH SEA
ENGLAND
WALES
The Wash
Severn
LONDON
Harwich
Thames
NORTH SEA
DOGGER BANK
DENMARK
Sylt
Heligoland
Wilhelmshaven
Jade Bay
GERMANY
Zuyder Zee
HOLLAND
BELGIUM

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2 Convergence of the Rival Fleets
The German plan was to carry out a one-day sortie to disrupt British patrols escorting their fishing vessels off the Dogger Bank (which were regarded by the Germans as 'spy' ships). Also, the Germans wished to obtain advance warning of any Heligoland Bight-type of sneak raid by the British and to reconnoitre the area for a possible raid of their own against the east coast of England (the Kaiser had recently authorized quick sweeps, provided that major confrontations were avoided).
Note: apart from a few brief important signals, the British warships observed wireless silence, whereas the German ships transmitted to base in continuous fashion.
KEY
The Dogger Bank.
Established minefields off English east coast.
Areas regarded by British as probably mined.
Beatty's rendezvous, arranged for 0700/24.
Jellicoe's rendezvous, arranged for 0930/24.
Bradford's rendezvous, arranged for 0920/24.
Advance of Hipper's units from the Jade.
Fair Isle
59°N
Orkney Islands
Scapa Flow
JELLICOE
(Burney, Warrender, Gamble)
58°N
Cromarty Firth
taking stations with the Grand Fleet
Arbuthnot
Gough-Calthorpe
Grant
Napier
57°N
SCOTLAND
Rosyth
Beatty
56°N
Bradford
&
Pakenham
Goodenough
0715 hours 24 January, SMS 'Kolberg' sights HMS 'Aurora' and engages her at a range of 8,000 yards. 'Aurora' replies, signalling that she is in contact with enemy. 'Kolberg' swings away east and 'Aurora' continues towards rendezvous. At 0735, HMS 'Southampton' sights the German battlecruisers steaming NW.
DENMARK
55°N
"WHITBY GAP"
(55°13'N, 3°12'E)
Sylt
HIPPER
(night 23/24 January)
Heligoland
Keyes sent here in case High Seas Fleet emerges.
54°N
Tyrwhitt
(HMS 'Arethusa' ahead, HMS 'Aurora' and some other units 13 miles astern (delayed by fog off Harwich).
Ems
Jade Bay
Wilhelmshaven
Keyes
53°N
The Wash
WALES
ENGLAND
Zuyder Zee
HOLLAND
GERMANY
52°N
Harwich
FOG BANK
3°W
2°W
1°W
0°
1°E
2°E
3°E
4°E
5°E
6°E
7°E
8°E

# BATTLE OF THE DOGGER BANK - continued

*Note: all the German ships carried increased crews. (The normal complement for SMS 'Blücher' was 880).*

## ❸ The Running Chase

**CASUALTIES**

British
15 killed.
80 wounded.
German
954 killed.
80 wounded.
189 captured.
(rescued from sea by British).

*This chart shows the 'running chase' with the Germans as the hare and the British as the hounds. During the action, the 'Blücher' was sunk and 'Seydlitz' and 'Derfflinger' badly damaged. On the British side, 'Lion' was severely damaged but reached port safely. The action had important results: the Germans realised the significance of cordite flashes in turrets, but the British did not (as the Jutland encounter in 1916 was to prove): British signalling and gunnery were shown to be wanting: the Germans saw that a direct surface confrontation with the British was a hazardous venture, and concentrated more attention on their submarine force.*

'Indomitable' 'New Zealand' 'Princess Royal' 'Tiger' 'Lion' 'LOWESTOFT' 'NOTTINGHAM' 'BIRMINGHAM' 'SOUTHAMPTON'

*Jellicoe (150 miles to the north) steers to starboard ready to intercept any German breakaway in this direction.*

GENERAL DIRECTION OF THE ACTION

'Blücher'
'Derfflinger'
'Moltke'
'Seydlitz'

'ARETHUSA'
'UNDAUNTED'
'AURORA'
'Meteor'

(speed increasing)

*'Blücher' opens fire at 'Lion'.*

*German destroyers throw up heavy smoke screen as battlecruisers race for home.*

*'Seydlitz' is badly damaged in the aftermost turret.*

*'Lion' opens fire on rear ship in German line ('Blücher'): Beatty orders an increase of speed to 29 knots.*

*'Lion' receives first hit.*

*Fierce artillery duel in this area. German ships damaged.*

*'Lion' is hit in engine-room, reducing her speed to 15 knots. She falls out of the chase.*

*'Tiger' takes over lead of British ships. German Zeppelin L.5 is driven off. German submarine sighting (false) is reported.*

*1130 hours, 'Seydlitz' 'Derfflinger', and 'Moltke' run for port.*

*1213 hours, 'Blücher' capsizes and sinks.*

*The British were increasing speed as the chase developed, and a crushing victory appeared likely. However, from 1045 hours onwards, a series of misinterpreted signals from 'Lion' caused the British battlecruisers to concentrate on 'Blücher', thus enabling the remaining German ships to slip the net and escape.*

'Lookout'
'Meteor' and 'Miranda'

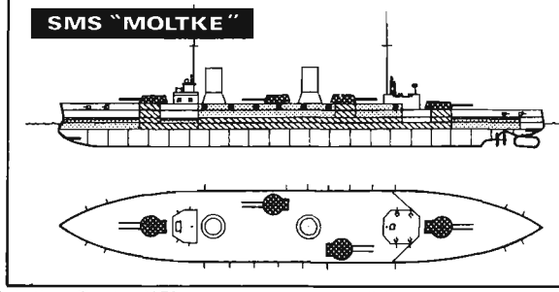
0702 0700 0713 0720 0736 0738 0752 0700 0751 0731 0809 0717 0717 0750 0830 0814 0847 0856 0845 0852 0852 0914 0914 0930 0928 0939 1016 1005 1039 1105 1112 1200 1015 1000 1005 1019 0930 1130 1215 1155 1145 1100 1045 1100 1110 1125 1204

to the Jade

**KEY**

- Track of German main force.
- Track of British battlecruisers.
- Track of British 1 Light Cruiser Squadron.
- Tracks of British 1 and 3 Flotilla cruisers.
- Tracks of British individual destroyers.
- ✱ Position where SMS 'Blücher' is sunk.

**SMS "MOLTKE"**



Eight 12·2-inch guns.
Twelve 6-inch guns.
Sixteen 24-pounders.
Four 19·5-inch torp. tubes.

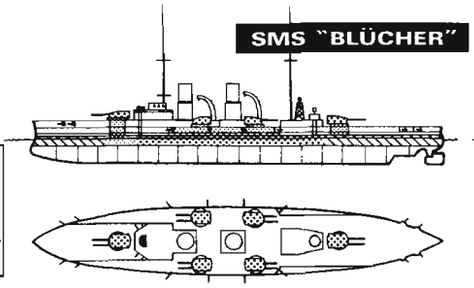
| | |
|---|---|
| Laid down : | 1909. |
| Completed : | 1911. |
| Maximum speed : | 28 knots. |
| Displacement : | 21,800 tons. |
| Complement : | 1,400. |

*Note: for details of HMS 'Lion', see 'The Battle of Jutland 1916.'*

**SMS "BLÜCHER"**

Twelve 8·2-inch guns.
Eight 6-inch guns.
Sixteen 24-pounders.
Three torpedo tubes.

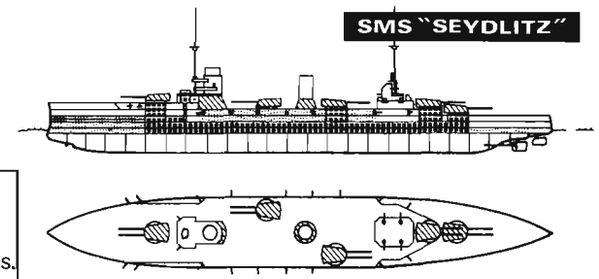
| | |
|---|---|
| Laid down : | 1906. |
| Completed : | 1909. |
| Maximum speed : | 26 knots. |
| Displacement : | 15,500 tons. |
| Complement : | 1,100. |



**SMS "SEYDLITZ"**

Ten 11-inch guns.
Twelve 6-inch guns.
Twelve 24-pounders.
Four 14-pounders (A.A.).
Four 20-inch torp. tubes.

| | |
|---|---|
| Laid down : | 1911. |
| Completed : | 1913. |
| Maximum speed : | 29 knots. |
| Displacement : | 24,610 tons. |
| Complement : | 1,400. |



Flagship of Rear-Admiral Hipper

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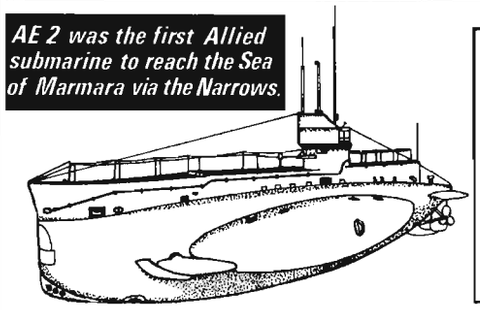
# THE SUCCESSFUL ALLIED SUBMARINE CAMPAIGN AT THE TIME OF THE GALLIPOLI EXPEDITION MAY - DECEMBER 1915

*Although some success attended early Allied infiltrations into the Sea of Marmara, it was not until the late summer (when guns were fitted to the decks of submarines) that major results began to be achieved. The Allies kept two submarines in continuous operation in the Sea of Marmara, and their activities consisted of sinking dhows, bombarding shore installations and railway lines, and generally harassing Turkish sea traffic until it was virtually non - existent. Thus, this campaign was an important supplement to the Allied land-effort on the Gallipoli peninsula. This map shows some of the submariners exploits.*

0 10 20
Miles

## ROYAL AUSTRALIAN NAVY SUBMARINE 'AE 2'

*AE 2 was the first Allied submarine to reach the Sea of Marmara via the Narrows.*



| | |
|---|---|
| Class and type: | 'E'. |
| Built: | 1913/1914. |
| Length: | 181 feet. |
| Beam: | 22 ft. 6 ins. |
| Max. speed (surf.): | 15·5 knots. |
| Max. speed (sub.): | 10 knots. |
| Complement: | 30. |
| Armament: | Five 18 in. t.tbs. |

BLACK SEA

BERLIN - BAGHDAD RAILWAY

EUROPE

Silivri

Erekli

Rodosto

CONSTANTINOPLE

Golden Horn

BOSPORUS

SCUTARI

PRINKIPO CHANNEL

Princes Islands

Ismid

Kava Burnu

GULF OF ISMID

BERLIN - BAGHDAD RAILWAY

TURKEY IN EUROPE

SEA OF MARMARA

Marmara

MARMARA STRAIT

Afisia

Pasha Liman

GULF OF ARTAKI

Artaki Peninsula

Artaki Bay

Panderma

Kalolimno

Kios

LAKE ISNIK

GULF OF MUDANIA

Mudania

Brusa

GULF OF SAROS

Bulair

Gallipoli

GALLIPOLI STRAIT

DARDANELLES

NARROWS

Chanak Kale

MINES

LAKE MANIAS

L. ABULIONA

TURKEY IN ASIA

**7** *24 May, E 11 chases steamer into harbour and sinks her.*

**8** *25 May, E 11 sinks "Stambul" in Golden Horn.*

**11** *8 August, E 11 sinks Turkish battleship "Barbarousse Haireddine".*

**6** *23 May, E 11 sinks Turkish torpedo-gunboat.*

**10** *17 July, E 7 bombards and blocks railway line.*

**4** *30 April, AE 2 is damaged and scuttled; crew surrender to "Sultan Hissar".*

**5** *10 May, E 14 sinks Turkish transport "Gul Djemal."*

**2** *27 April, E 14 sinks Turkish torpedo boat.*

**1** *25 April, AE 2 sinks Turkish gunboat. This action results in General Hamilton rejecting A.N.Z.A.C.'s tentative request to evacuate the Gallipoli peninsula.*

**3** *29 April, E 14 sinks Turkish transport.*

**13** *21 August, E 2 sinks steamer.*

**9** *31 May, E 11 torpedoes liner.*

**14** *28 August, E 2 and E11 bombard railway station.*

**12** *9 August, E 2 bombards railway station.*

### RESULTS OF THE CAMPAIGN

1. The Turkish merchant fleet was halved.
2. Every Turkish battleship was sunk.
3. Only a few Turkish naval vessels remained in operation.
4. The pattern was set for future underseas operations by Allied submarines.

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# BRITISH BATTLESHIP LOSSES DURING THE GALLIPOLI CAMPAIGN MAY 1915

**KEY**

✳ Positions of the three British battleships when sunk during May.

★ Main forts.

*On 12 May, HMS "Queen Elizabeth" was ordered home from the Aegean area to strengthen the British Grand Fleet. On 13 May, the British battleship HMS "Goliath" was sunk by a Turkish destroyer, and later in the month the U21 sank two more British battleships. The Allied heavy warships were withdrawn from the Gallipoli operations leaving the land troops with no large naval guns to support them until the new monitors arrived in August.*

Boghali

Gaba Tepe

**2** *1225 hours 25 May, U 21 torpedoes HMS "Triumph" in full view of A.N.Z.A.C. troops. 3 British officers and 70 men are lost. De Robeck promptly recalls all large warships to Mudros: this causes a demoralizing effect upon the Allied troops on land. HMS "Majestic" is ordered to 'W' Beach on 26 May.*

Maidos

GALLIPOLI PENINSULA

Kilid Bahr

Chanak Kale

DARDANELLES

AEGEAN SEA

Krithia

0 1 2 3 Miles

'W' Beach

Cape Helles

Morto Bay

Eski Hissarlik Pt.

**1** *0116 hours 13 May, HMS "Goliath" is sunk by Turkish destroyer "Muavenet-i- Miliet." Operating under cover of a thick mist, the destroyer fires three torpedoes. 570 British officers and men are lost. This is the largest single disaster suffered by the Royal Navy throughout the entire Dardanelles and Gallipoli campaign.*

**3** *0645 hours 27 May, U 21 fires two torpedoes at HMS "Majestic". The "fish" penetrate the protecting torpedo-nets and British battleship sinks with the loss of 40 men.*

**ROUTE OF U 21 TO THE AEGEAN**

*U 21 DEPARTS 25 APRIL.*

*U 21 ARRIVES HERE ON 13 MAY. CREW RESTS FOR ONE WEEK WHILE SUBMARINE IS REFUELLED AND STORES REPLENISHED.*

Wilhelmshaven

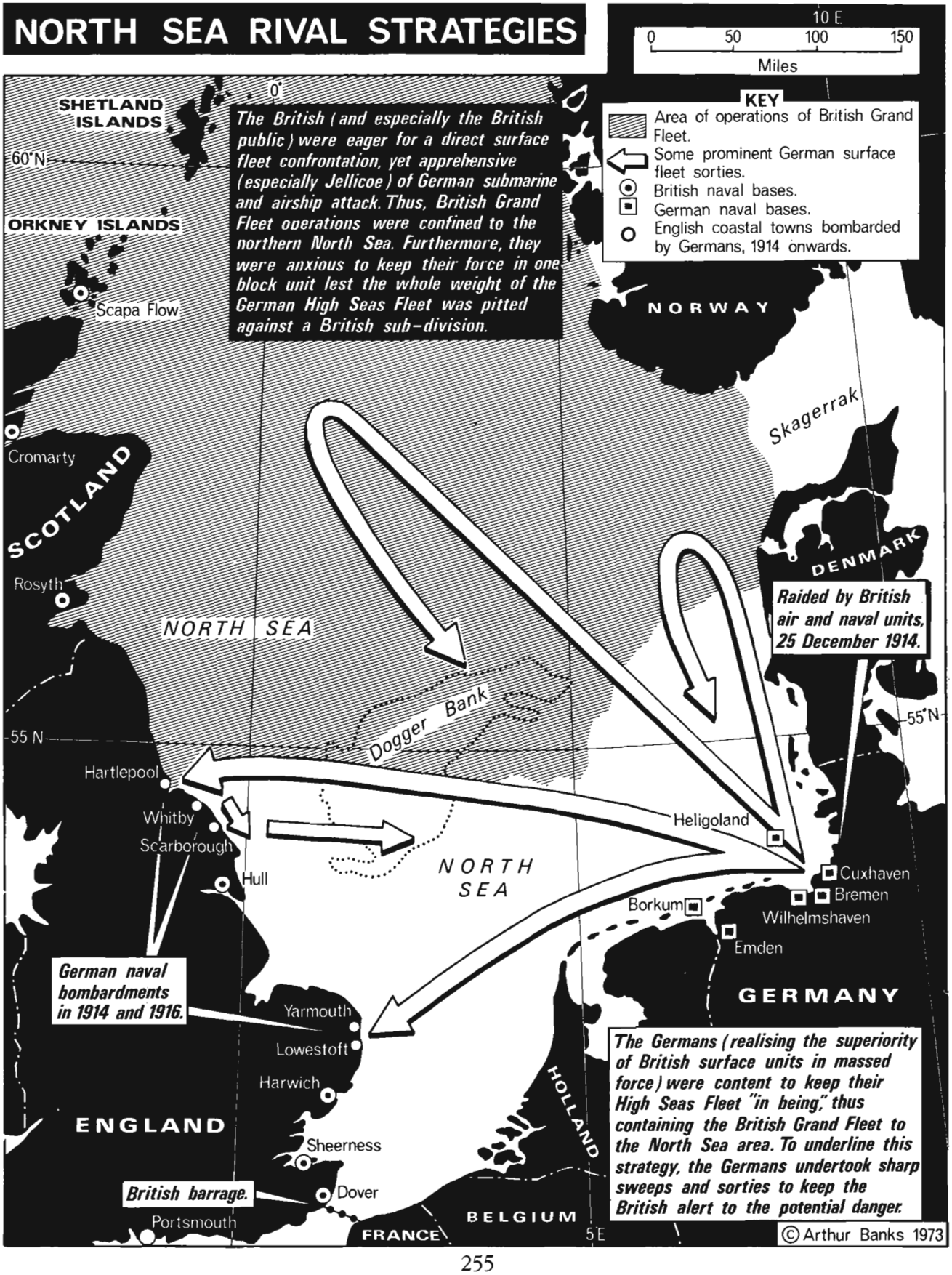
Cattaro

Cape Helles

0 600 Miles

*25 MAY, U 21 ARRIVES OFF CAPE HELLES.*

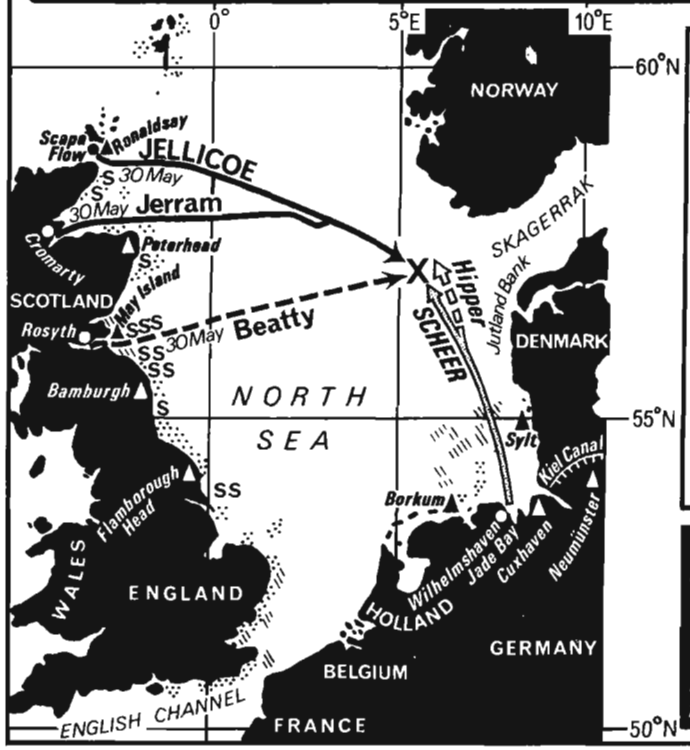
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NORTH SEA RIVAL STRATEGIES
10 E
0 50 100 150
Miles
KEY
Area of operations of British Grand Fleet.
Some prominent German surface fleet sorties.
British naval bases.
German naval bases.
English coastal towns bombarded by Germans, 1914 onwards.
0°
SHETLAND ISLANDS
60°N
ORKNEY ISLANDS
Scapa Flow
The British (and especially the British public) were eager for a direct surface fleet confrontation, yet apprehensive (especially Jellicoe) of German submarine and airship attack. Thus, British Grand Fleet operations were confined to the northern North Sea. Furthermore, they were anxious to keep their force in one block unit lest the whole weight of the German High Seas Fleet was pitted against a British sub-division.
NORWAY
Skagerrak
Cromarty
SCOTLAND
Rosyth
DENMARK
Raided by British air and naval units, 25 December 1914.
NORTH SEA
Dogger Bank
55°N
55 N
Hartlepool
Whitby
Scarborough
Hull
Heligoland
NORTH SEA
Cuxhaven
Bremen
Borkum
Wilhelmshaven
Emden
GERMANY
German naval bombardments in 1914 and 1916.
Yarmouth
Lowestoft
Harwich
HOLLAND
ENGLAND
Sheerness
British barrage.
Dover
Portsmouth
FRANCE
BELGIUM
5°E
The Germans (realising the superiority of British surface units in massed force) were content to keep their High Seas Fleet "in being," thus containing the British Grand Fleet to the North Sea area. To underline this strategy, the Germans undertook sharp sweeps and sorties to keep the British alert to the potential danger.
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# THE BATTLE OF JUTLAND 31 MAY 1916

*Note; to avoid any possible confusion, times are based on the 24-hour clock system.*

## ❶ The advances of the British and German fleets to the scene of Jutland



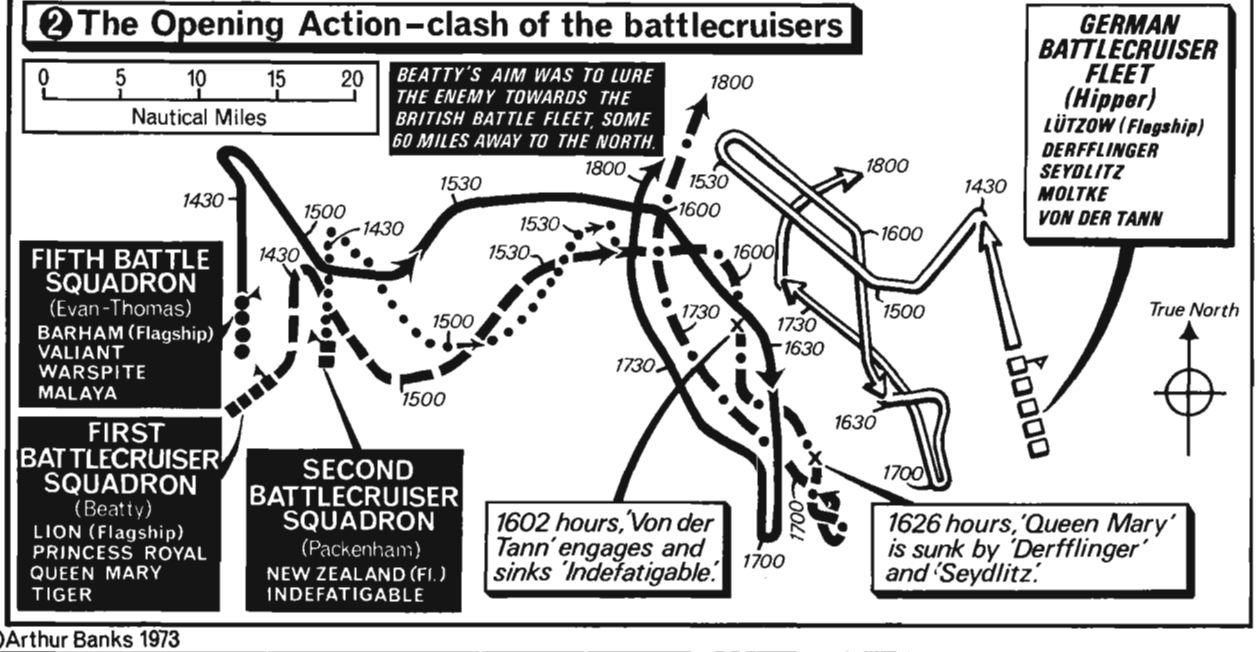

**KEY**

BRITISH GRAND FLEET
- British Battle Fleet (Admiral Jellicoe)
- British Battlecruiser Fleet (Vice-Admiral Beatty)

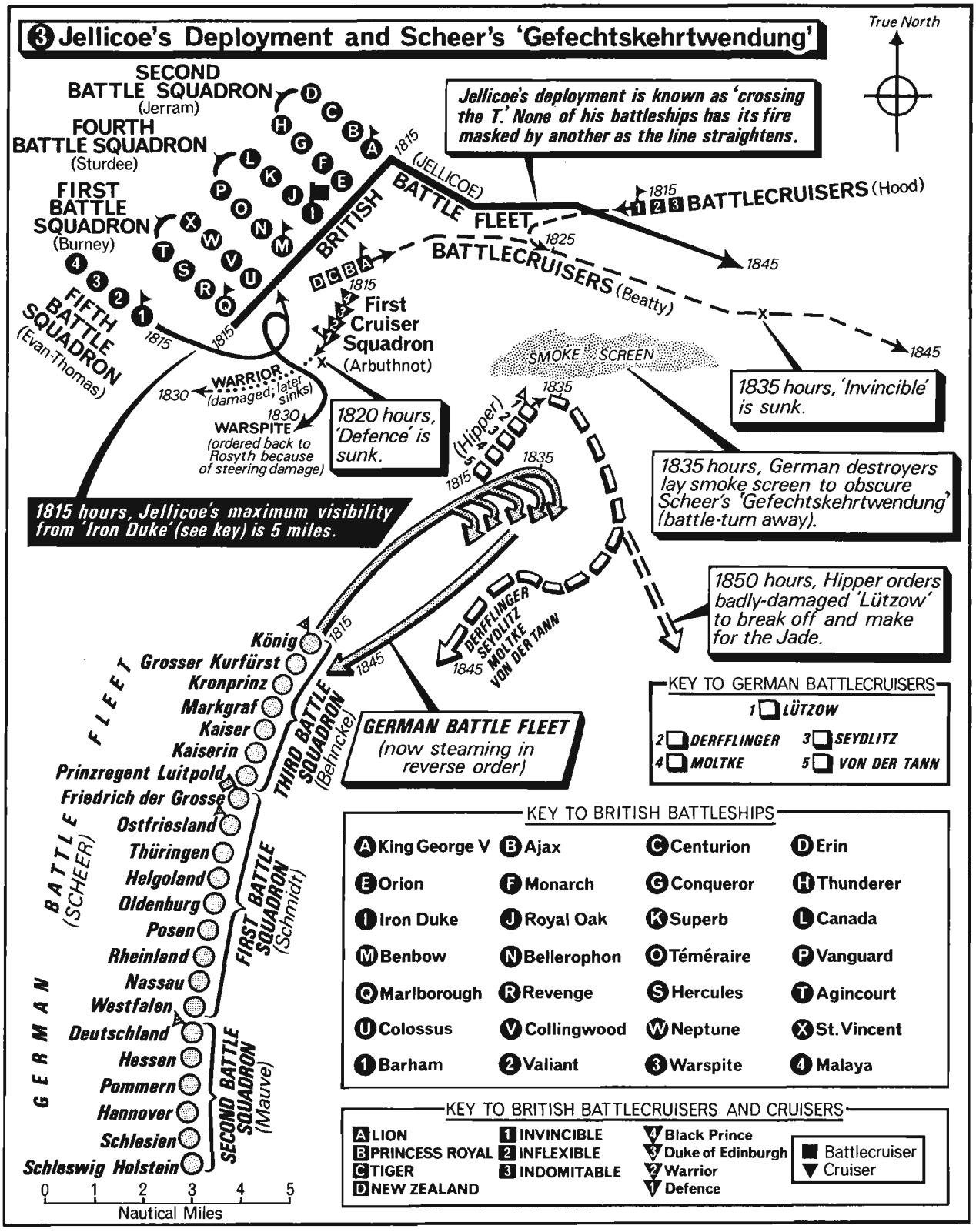
GERMAN HIGH SEAS FLEET
- German Battle Fleet (Vice-Admiral Scheer)
- German Battlecruiser Fleet (Vice-Admiral Hipper)
- S German submarines lurking off British coast on 30 May 1916
- Directional wireless stations
- Naval bases
- British minefields
- German minefields
- X The battle area (31 May 1916)

*Possessing superiority in ships and fire-power, Jellicoe wished to force a direct confrontation with the German High Seas Fleet. However, German naval strategy was designed to avoid a head-on clash, but to contain the British Grand Fleet in the North Sea area by the very presence of their large fleet which might venture out of port at any time.*

## ❷ The Opening Action–clash of the battlecruisers



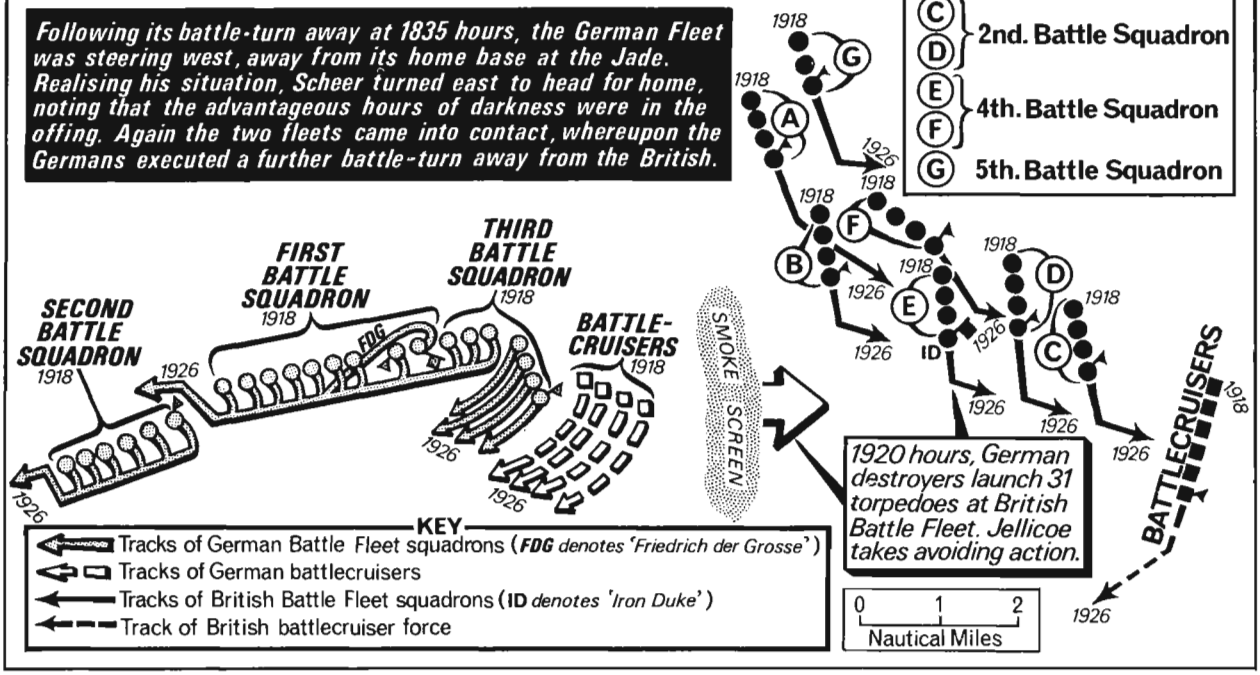

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3 Jellicoe's Deployment and Scheer's 'Gefechtskehrtwendung'
True North
Jellicoe's deployment is known as 'crossing the T.' None of his battleships has its fire masked by another as the line straightens.
SECOND BATTLE SQUADRON (Jerram)
FOURTH BATTLE SQUADRON (Sturdee)
FIRST BATTLE SQUADRON (Burney)
FIFTH BATTLE SQUADRON (Evan-Thomas)
BRITISH BATTLE FLEET (JELLICOE)
1815
1825
1845
BATTLECRUISERS (Hood)
BATTLECRUISERS (Beatty)
First Cruiser Squadron (Arbuthnot)
WARRIOR (damaged; later sinks)
1830
WARSPITE (ordered back to Rosyth because of steering damage)
1820 hours, 'Defence' is sunk.
1835 hours, 'Invincible' is sunk.
SMOKE SCREEN
1835
(Hipper)
1835 hours, German destroyers lay smoke screen to obscure Scheer's 'Gefechtskehrtwendung' (battle-turn away).
1815 hours, Jellicoe's maximum visibility from 'Iron Duke' (see key) is 5 miles.
1850 hours, Hipper orders badly-damaged 'Lützow' to break off and make for the Jade.
DERFFLINGER
SEYDLITZ
MOLTKE
VON DER TANN
König
Grosser Kurfürst
Kronprinz
Markgraf
Kaiser
Kaiserin
Prinzregent Luitpold
Friedrich der Grosse
Ostfriesland
Thüringen
Helgoland
Oldenburg
Posen
Rheinland
Nassau
Westfalen
Deutschland
Hessen
Pommern
Hannover
Schlesien
Schleswig Holstein
GERMAN BATTLE FLEET (SCHEER)
THIRD BATTLE SQUADRON (Behncke)
FIRST BATTLE SQUADRON (Schmidt)
SECOND BATTLE SQUADRON (Mauve)
GERMAN BATTLE FLEET (now steaming in reverse order)
KEY TO GERMAN BATTLECRUISERS
1 LÜTZOW
2 DERFFLINGER
3 SEYDLITZ
4 MOLTKE
5 VON DER TANN
KEY TO BRITISH BATTLESHIPS
A King George V
B Ajax
C Centurion
D Erin
E Orion
F Monarch
G Conqueror
H Thunderer
I Iron Duke
J Royal Oak
K Superb
L Canada
M Benbow
N Bellerophon
O Téméraire
P Vanguard
Q Marlborough
R Revenge
S Hercules
T Agincourt
U Colossus
V Collingwood
W Neptune
X St. Vincent
1 Barham
2 Valiant
3 Warspite
4 Malaya
KEY TO BRITISH BATTLECRUISERS AND CRUISERS
A LION
B PRINCESS ROYAL
C TIGER
D NEW ZEALAND
1 INVINCIBLE
2 INFLEXIBLE
3 INDOMITABLE
4 Black Prince
3 Duke of Edinburgh
2 Warrior
1 Defence
Battlecruiser
Cruiser
0 1 2 3 4 5
Nautical Miles

# THE BATTLE OF JUTLAND - continued

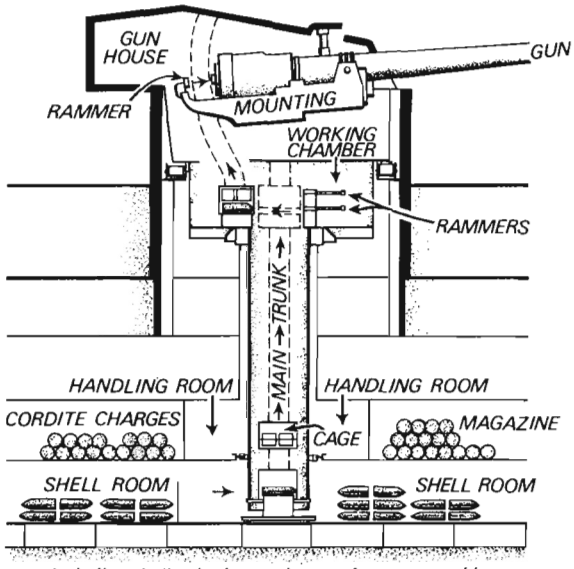
## ❹ The Battle Fleets in action for the second time

*Following its battle-turn away at 1835 hours, the German Fleet was steering west, away from its home base at the Jade. Realising his situation, Scheer turned east to head for home, noting that the advantageous hours of darkness were in the offing. Again the two fleets came into contact, whereupon the Germans executed a further battle-turn away from the British.*




## A BRITISH BATTLECRUISER GUN TURRET

*The loss of three British battlecruisers at Jutland was attributed to lack of adequate anti-flash screening between magazine and handling-room.*




*A shell exploding in the gun house of a turret could ignite a chain of charges down to the magazine section.*

## BRITISH AND GERMAN LOSSES AT JUTLAND

| DETAILS | BRITISH | GERMAN |
|---|---|---|
| Total of ships engaged | 151 | 99 |
| Total of men employed | 60,000 | 36,000 |
| Battleships sunk | 0 | 1 |
| Battlecruisers sunk | 3 | 1 |
| Armoured cruisers sunk | 3 | 0 |
| Light cruisers sunk | 0 | 4 |
| Destroyers sunk | 8 | 5 |
| Casualties | 6,097 | 2,551 |

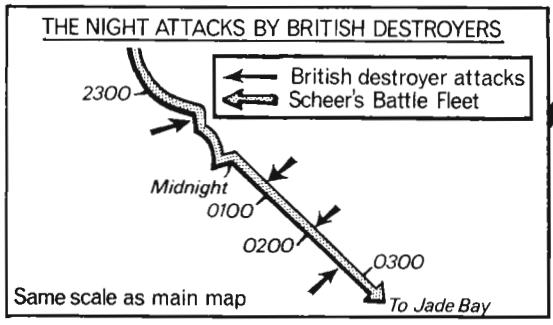
***The Battle of Jutland (known to the Germans as the 'Skagerrak') was a German success in terms of ships sunk and men lost, and contributed to Russia's exit from the war. Allied supplies to the hard-pressed Russian armies could not be guaranteed, as the Baltic approaches remained in possession of the High Seas Fleet. A controversy commenced in Britain to apportion the blame for the result, and a Jellicoe versus Beatty campaign ensued. Nevertheless, the German Fleet had been badly mauled, and U-boat warfare against British commerce was a consequence.***

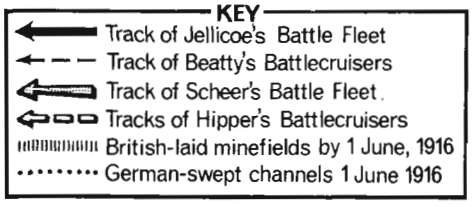
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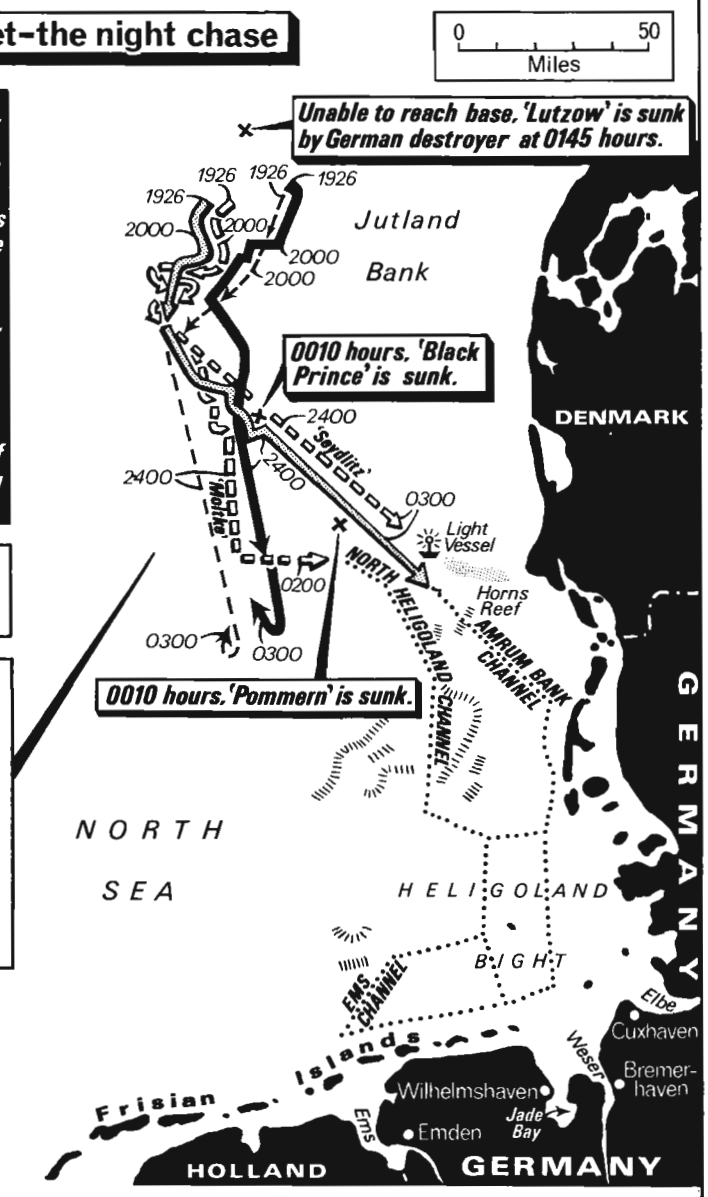
# ❺ The escape of the German Fleet–the night chase

***Throughout the hours of darkness, 31 May–1 June, there now followed a general chase towards the Jade, with the German warships intent on making their base with all haste, and the British warships bent on interposing themselves to block the various escape routes along the mine-swept channels. The bulk of the High Seas Fleet did, in fact, evade its pursuers, but arrived home in a severely battered condition, and unfit for further immediate service. The British squadrons re-formed, and, fearing a large submarine attack (German reconnaissance zeppelin L.11 had shadowed him since 0319 hours), Jellicoe ordered the Grand Fleet back to its bases. Within 48 hours, Jellicoe had his fleet at a state of instant readiness for a fresh encounter – indicating how he had really fared at Jutland Bank!***

*Note: during the night chase, the British Admiralty in London intercepted various German wireless signals stating Scheer's positions en route for the Jade. The use to which this valuable information was put by the British, is still undetermined.*




Smaller units were operating with the British and German Battle and Battlecruiser Fleets – these are listed below

Abbreviations:– S = Squadron, F = Flotilla, AC = Armoured Cruiser, LC = Light Cruiser, D = Destroyer, SG = Scouting Group

| BRITISH BATTLE FLEET | |
|---|---|
| 1st. ACS | 4 ships |
| 2nd. ACS | 4 ships |
| 4th. LCS | 5 ships |
| 4th. LCS (attached) | 6 ships |
| 4th. DF | 19 ships |
| 11th. DF | 16 ships |
| 12th. DF | 16 ships |
| plus | |
| Minelayers | 1 ship |
| D Tenders | 1 ship |

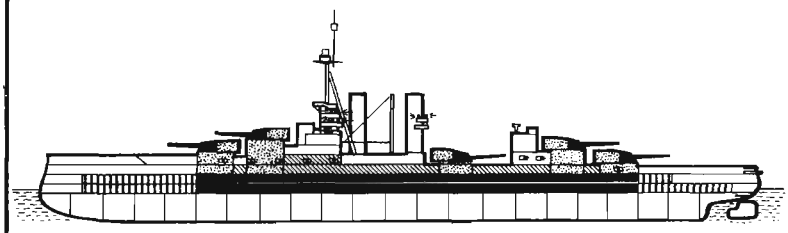
| BRITISH BATTLECRUISER FLEET | |
|---|---|
| 1st. LCS | 4 ships |
| 2nd. LCS | 4 ships |
| 3rd. LCS | 4 ships |
| 1st. DF | 10 ships |
| 9th. & 10th. DF (comb.) | 8 ships |
| 13th. DF | 11 ships |
| plus | |
| Seaplane Carriers | 1 ship |

| GERMAN BATTLE FLEET | |
|---|---|
| 4th. SG (LC) | 5 ships |
| LC | 1 ship |
| 1st. DF (half) | 4 ships |
| 3rd. DF | 7 ships |
| 5th. DF | 11 ships |
| 7th. DF | 9 ships |

| GERMAN BATTLECRUISER FLEET | |
|---|---|
| 2nd. SG (LC) | 4 ships |
| LC | 1 ship |
| 2nd. DF | 10 ships |
| 6th. DF | 9 ships |
| 9th. DF | 11 ships |

# THE BATTLE OF JUTLAND – continued

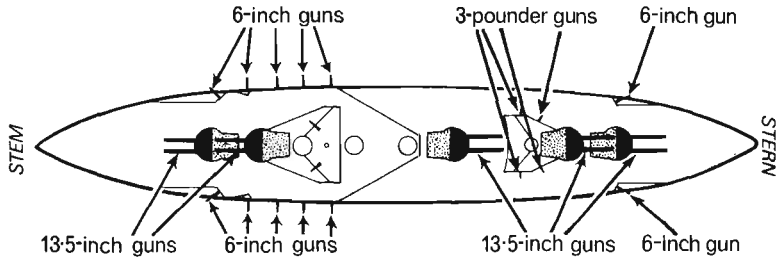
## HMS "IRON DUKE" (Flagship of Admiral Jellicoe)



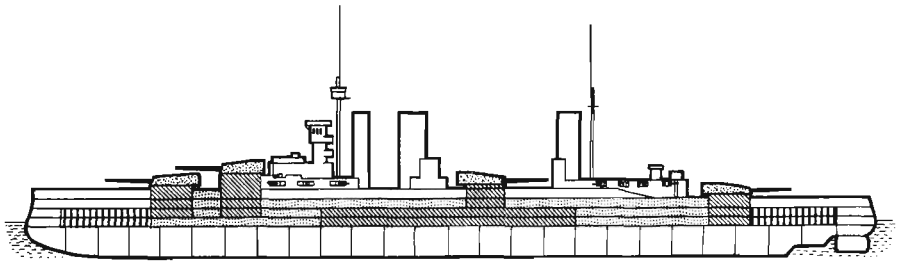
**ARMAMENT**
Ten 13·5-inch guns
Twelve 6-inch guns
Four 3-pounder guns
Four 21-inch torpedo tubes

The 'Iron Duke' was a Dreadnought battleship, and the class was named after her. Sister-ships were 'Benbow', 'Emperor of India', and 'Marlborough'.

| | |
|---|---|
| Laid down: | 1912 |
| Completed: | 1914 |
| Displacement: | 25,000 tons |
| Waterline length: | 620 feet |
| Maximum speed: | 23 knots |
| Complement: | 900 |



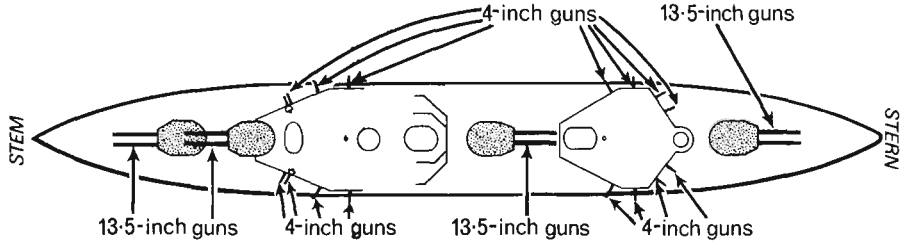

## HMS "LION" (Flagship of Vice-Admiral Beatty)



**ARMAMENT**
Eight 13·5-inch guns
Sixteen 4-inch guns
Three 21-inch torpedo tubes

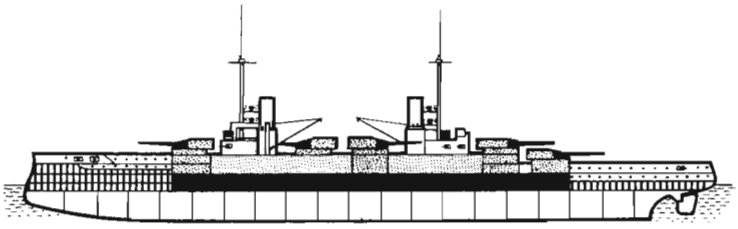
The 'Lion' was a battle-cruiser, and the class was named after her. There was one sister-ship, 'Princess Royal'.

| | |
|---|---|
| Laid down: | 1909 |
| Completed: | 1912 |
| Displacement: | 26,350 tons |
| Waterline length: | 675 feet |
| Maximum speed: | 29 knots |
| Complement: | 1,000 |




©Arthur Banks 1973

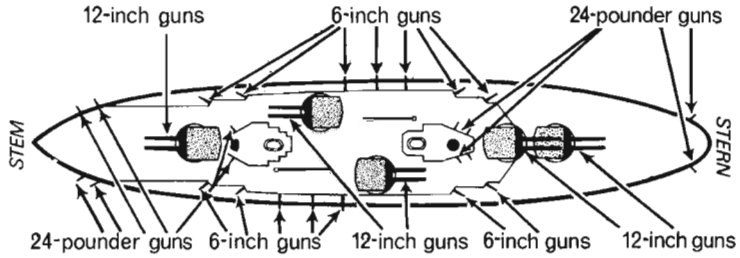
## SMS "FRIEDRICH DER GROSSE" (Flagship of Vice-Admiral Scheer)



**ARMAMENT**
Ten 12-inch guns
Fourteen 6-inch guns
Twelve 24-pounder guns
Four 14-pounder anti-aerial guns
Five 20-inch torpedo tubes

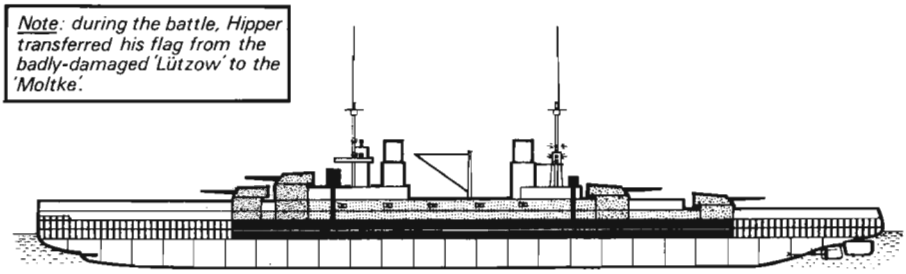
The 'Friedrich der Grosse' was a Dreadnought battleship of the 'Kaiser' class. Sister-ships were 'Kaiser', 'Kaiserin', 'Prinzregent Luitpold', and 'König Albert'.

| | |
|---|---|
| Laid down: | 1909 |
| Completed: | 1912 |
| Displacement: | 24,700 tons |
| Waterline length: | 564 feet |
| Maximum speed: | 23 knots |
| Complement: | 1,088 |




## SMS "LÜTZOW" (Flagship of Vice-Admiral Hipper)

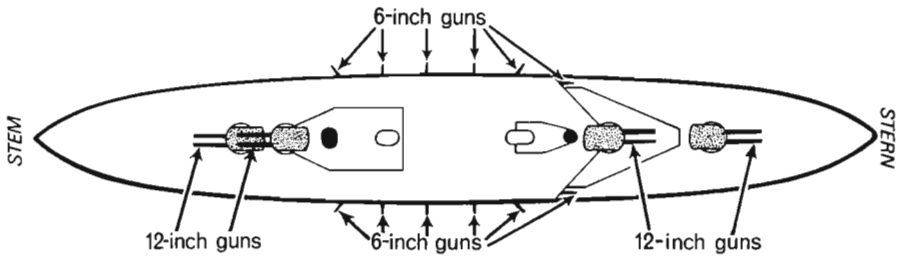
*Note: during the battle, Hipper transferred his flag from the badly-damaged 'Lützow' to the 'Moltke'.*

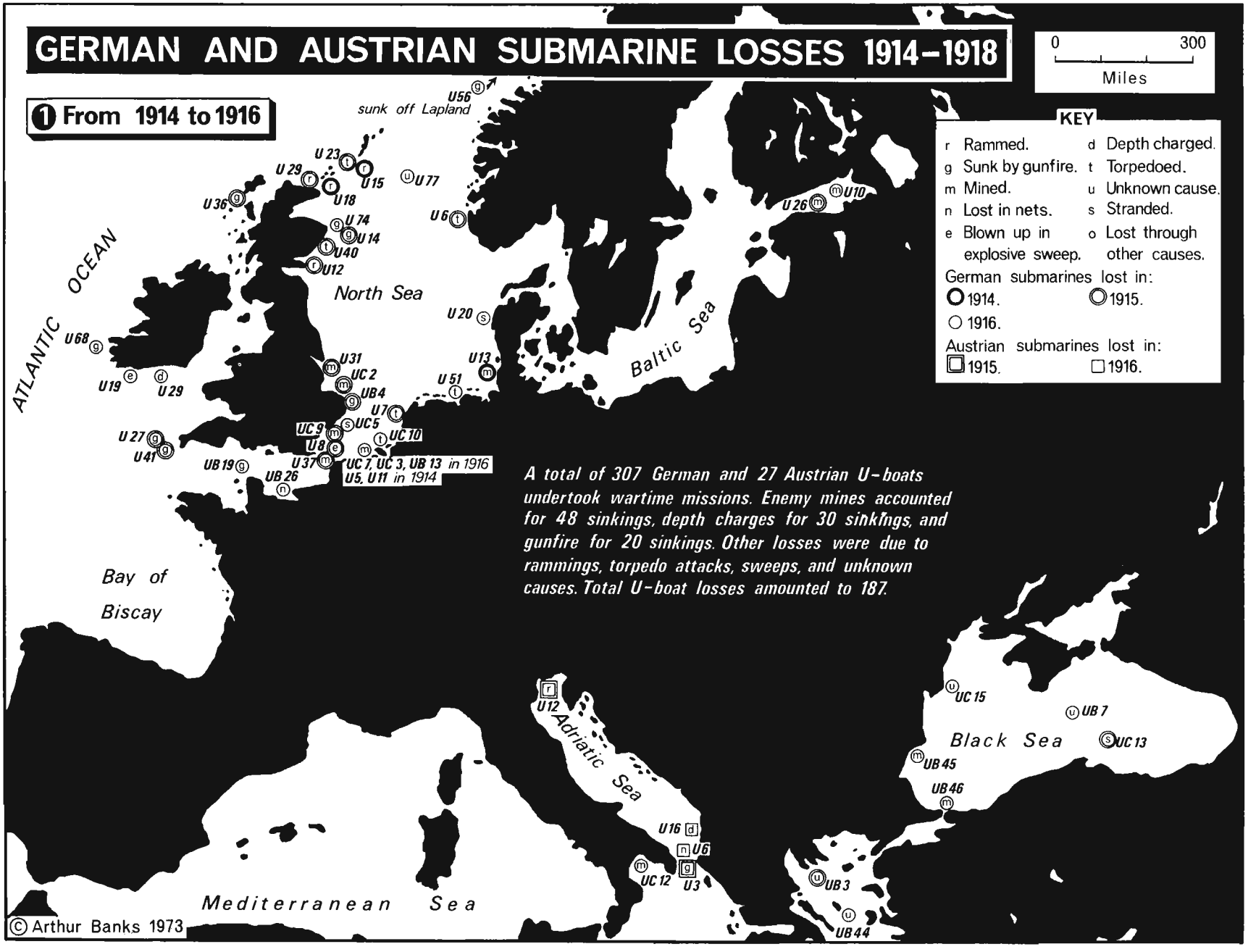


**ARMAMENT**
Eight 12-inch guns
Twelve 6-inch guns
Twelve 24-pounder guns
Five 22-inch torpedo tubes

The 'Lützow' was a battle-cruiser, and sister-ships were 'Derfflinger' and 'Ersatz Hertha'.

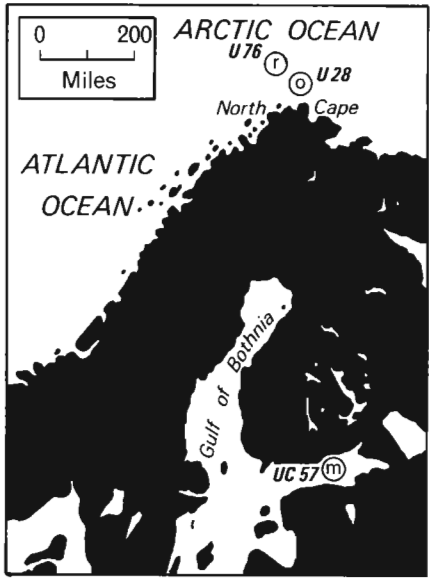
| | |
|---|---|
| Laid down: | 1912 |
| Completed: | 1915 |
| Displacement: | 28,000 tons |
| Waterline length: | 590 feet |
| Maximum speed: | 29 knots |
| Complement: | 1,100 |

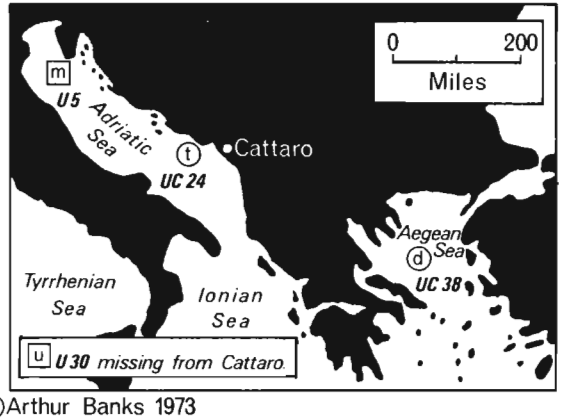



GERMAN AND AUSTRIAN SUBMARINE LOSSES 1914–1918
0
300
Miles
1 From 1914 to 1916
KEY
r Rammed.
d Depth charged.
g Sunk by gunfire.
t Torpedoed.
m Mined.
u Unknown cause.
n Lost in nets.
s Stranded.
e Blown up in explosive sweep.
o Lost through other causes.
German submarines lost in:
1914.
1915.
1916.
Austrian submarines lost in:
1915.
1916.
U56 sunk off Lapland
U23
U29
U15
U77
U18
U36
U74
U14
U40
U12
U6
U26
U10
North Sea
Baltic Sea
ATLANTIC OCEAN
U20
U68
U31
UC 2
U13
U19
U29
UB4
U51
U7
UC 5
UC 9
UC 10
U8
U27
U41
UB 19
U37
UB 26
UC 7, UC 3, UB 13 in 1916
U5, U11 in 1914
A total of 307 German and 27 Austrian U-boats undertook wartime missions. Enemy mines accounted for 48 sinkings, depth charges for 30 sinkings, and gunfire for 20 sinkings. Other losses were due to rammings, torpedo attacks, sweeps, and unknown causes. Total U-boat losses amounted to 187.
Bay of Biscay
U12
Adriatic Sea
U16
U6
U3
UC 12
UB 3
UB 44
UC 15
UB 7
Black Sea
UC 13
UB 45
UB 46
Mediterranean Sea
© Arthur Banks 1973

*The period February to April marked the period of unrestricted U-boat warfare and this was calculated to force Britain to sue for peace. British shipping losses reached 500,000 tons in April, and in May the convoy system was introduced. As U-boats were forced to attack the protected convoys, U-boat losses increased significantly.*

## 2 In 1917

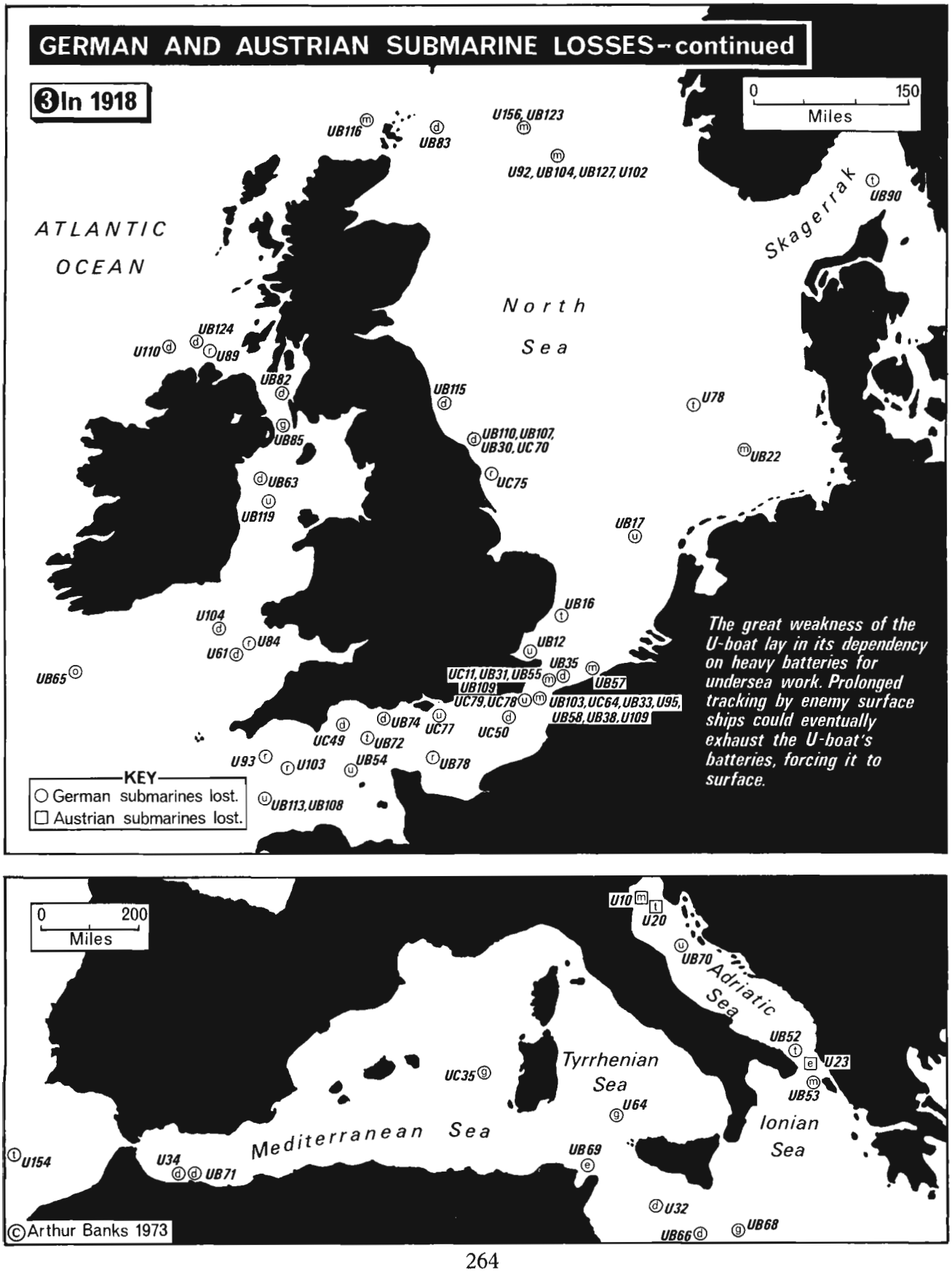




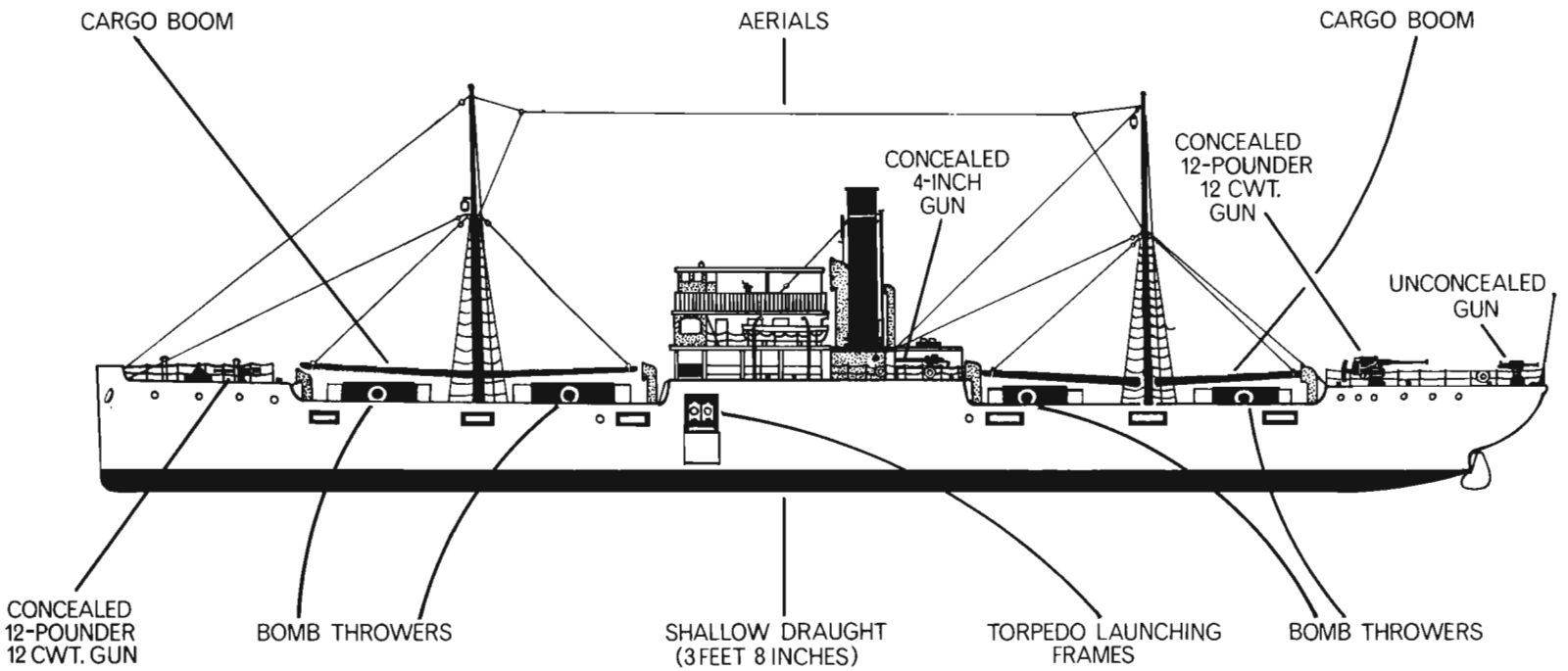


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GERMAN AND AUSTRIAN SUBMARINE LOSSES – continued
3 In 1918
0 150
Miles
ATLANTIC OCEAN
North Sea
Skagerrak
UB116
UB83
U156, UB123
U92, UB104, UB127, U102
UB90
U78
UB22
UB124
U110
U89
UB82
UB115
UB85
UB110, UB107, UB30, UC70
UC75
UB63
UB119
UB17
UB16
U104
U84
U61
UB12
UB65
UB35
UC11, UB31, UB55
UB109
UB57
UC79, UC78
UB103, UC64, UB33, U95, UB58, UB38, U109
UB74
UC77
UC50
UC49
UB72
U93
U103
UB54
UB78
UB113, UB108
KEY
○ German submarines lost.
□ Austrian submarines lost.
The great weakness of the U-boat lay in its dependency on heavy batteries for undersea work. Prolonged tracking by enemy surface ships could eventually exhaust the U-boat's batteries, forcing it to surface.
0 200
Miles
U10
U20
UB70
Adriatic Sea
UB52
U23
UB53
Tyrrhenian Sea
UC35
U64
Ionian Sea
Mediterranean Sea
U154
U34
UB71
UB69
U32
UB66
UB68
© Arthur Banks 1973

# A SPECIALLY-CONSTRUCTED BRITISH 'Q'-SHIP: HMS "HYDERABAD"

*Built by John I. Thorneycroft & Co. Ltd., in four months during 1917.*




***180 'Q'-ships were fitted out. 11 U-boats were sunk by them.***

***The first 'Q'-ship in service was the "Victoria" in November 1914.***

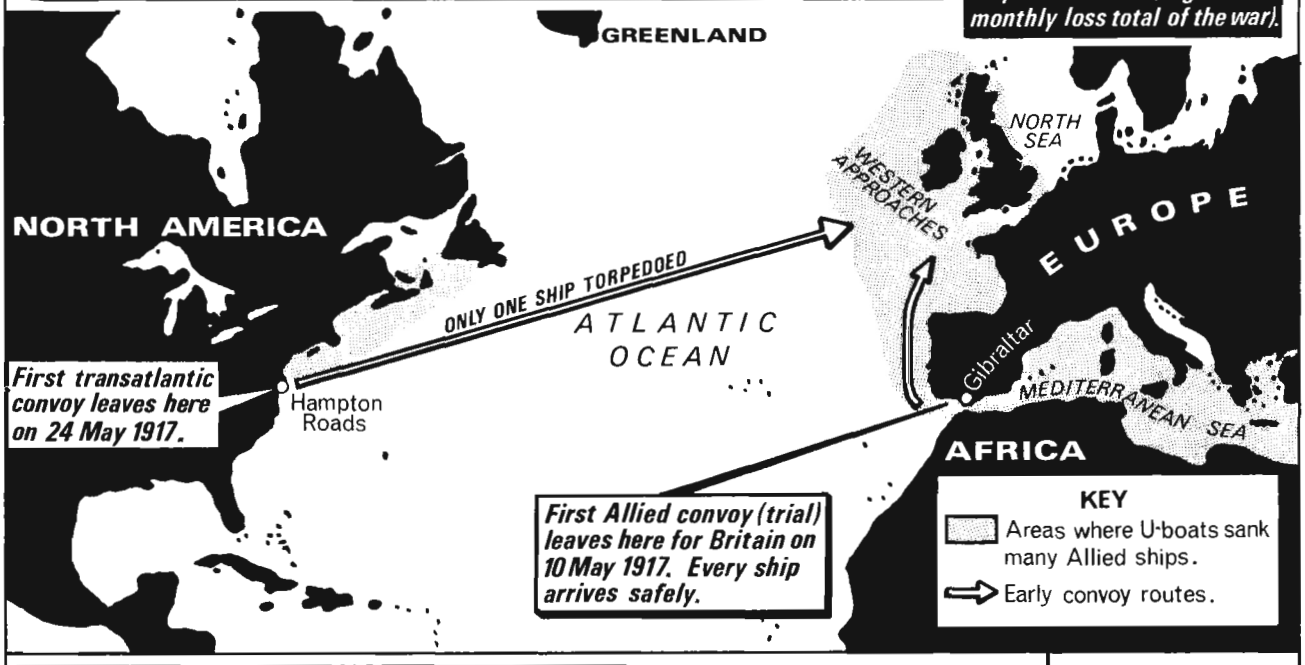
***First 'Q'-ship to sink a U-boat was the "Prince Charles" on 24 July 1915.***

*On HMS "Hyderabad", funnel and masts were adjustable. The after compass pedestal and wheel collapsed to improve field of fire.*

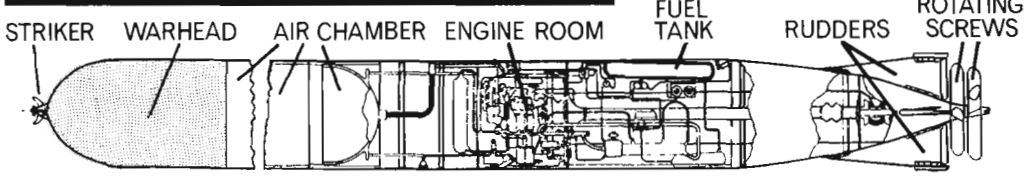
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# THE U-BOAT WAR AGAINST ALLIED MERCHANT SHIPPING IN 1917

*April to July was the most worrying period for Britain. In April alone, 373 Allied ships were sunk (highest monthly loss total of the war).*



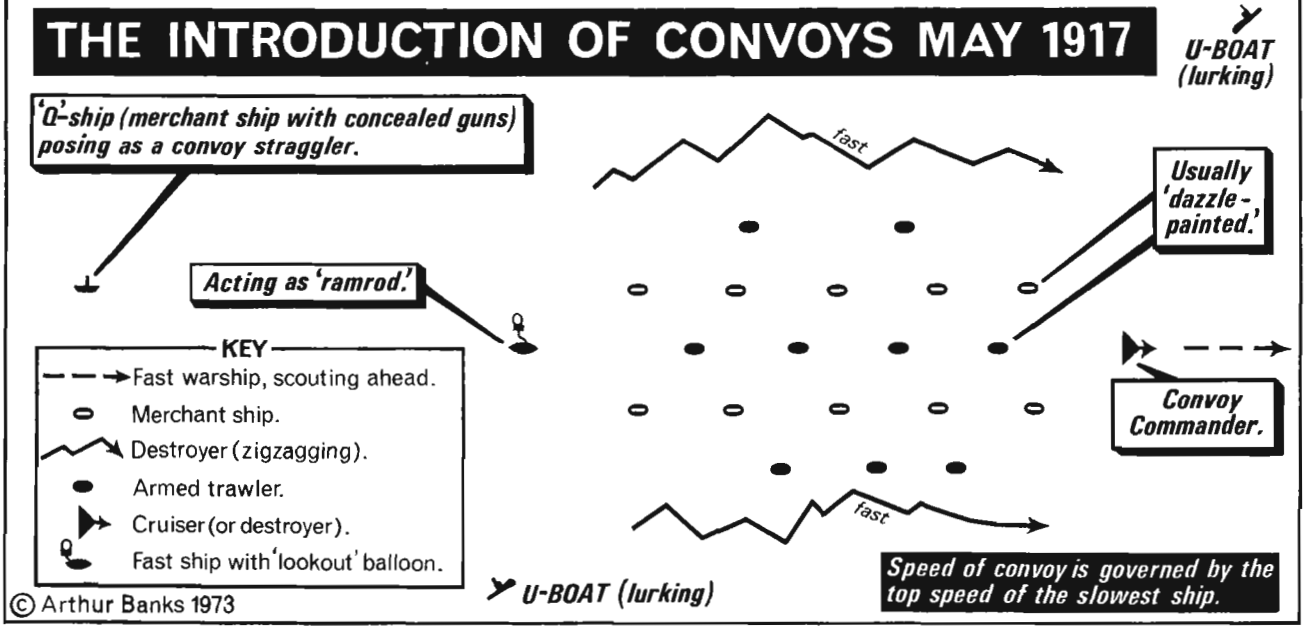

## A TYPICAL GERMAN TORPEDO




## CONVOY DATA

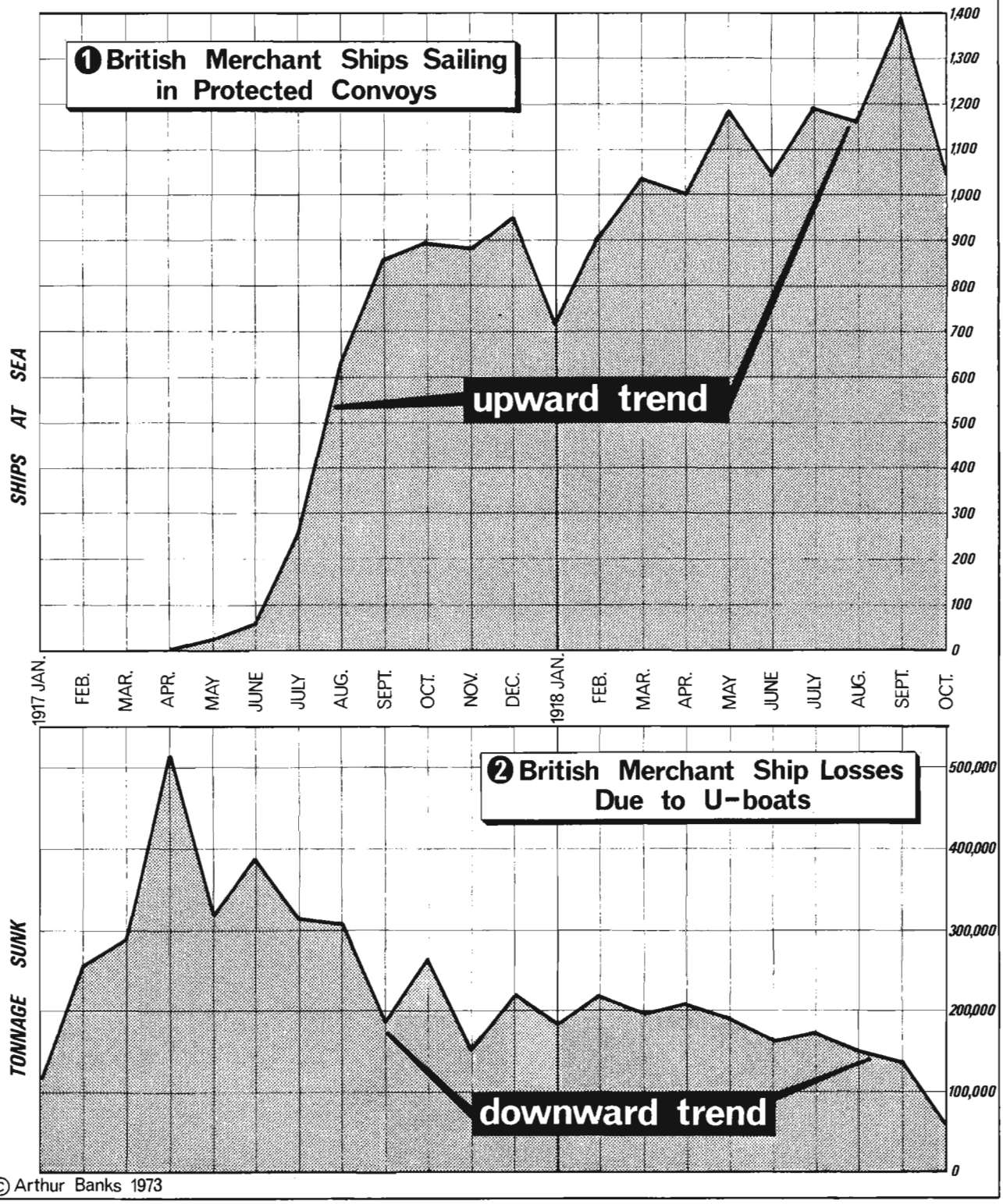
| TYPE | SHIPS SAILING | SHIPS SUNK |
|---|---|---|
| OCEAN | 16,070 | 96 |
| HOME WATERS | 67,888 | 161 |

# THE INTRODUCTION OF CONVOYS MAY 1917

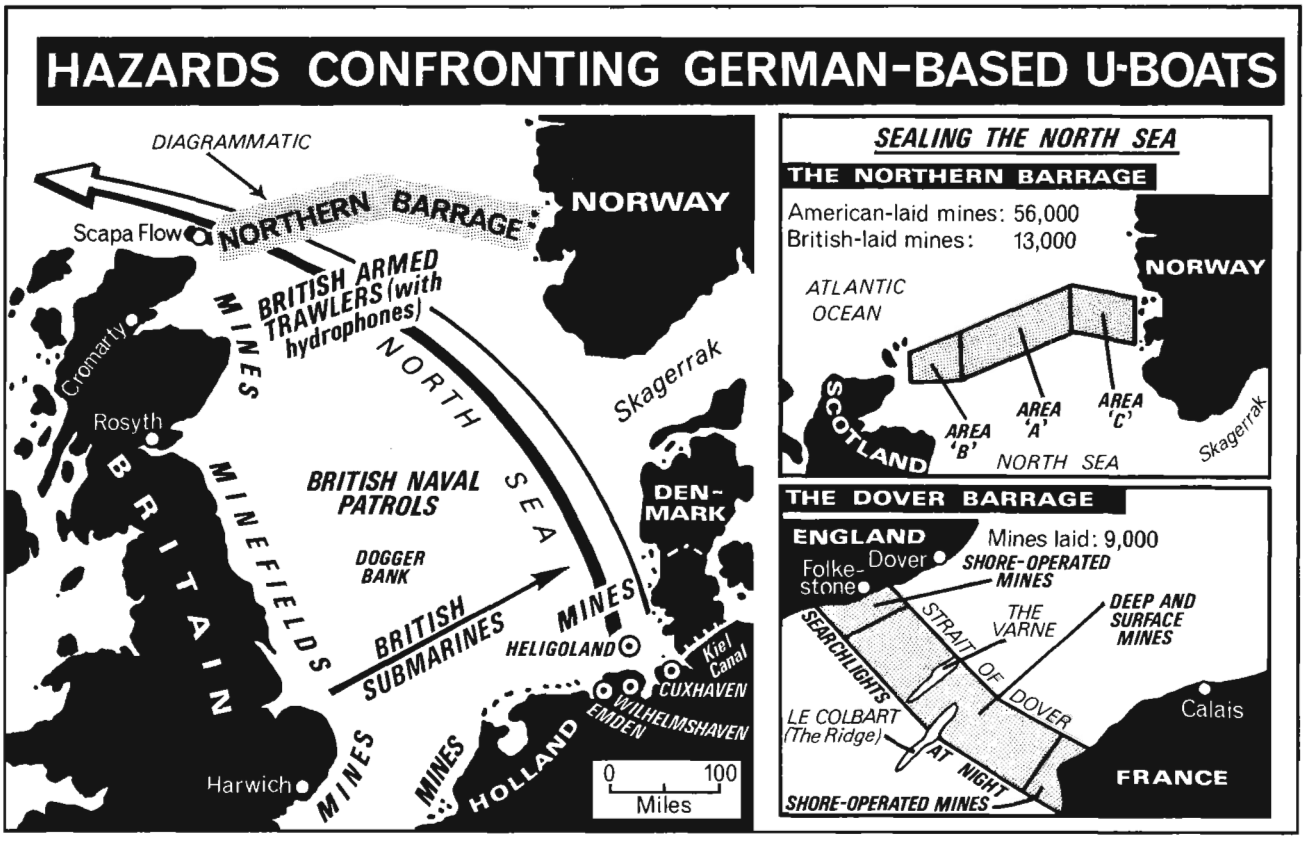


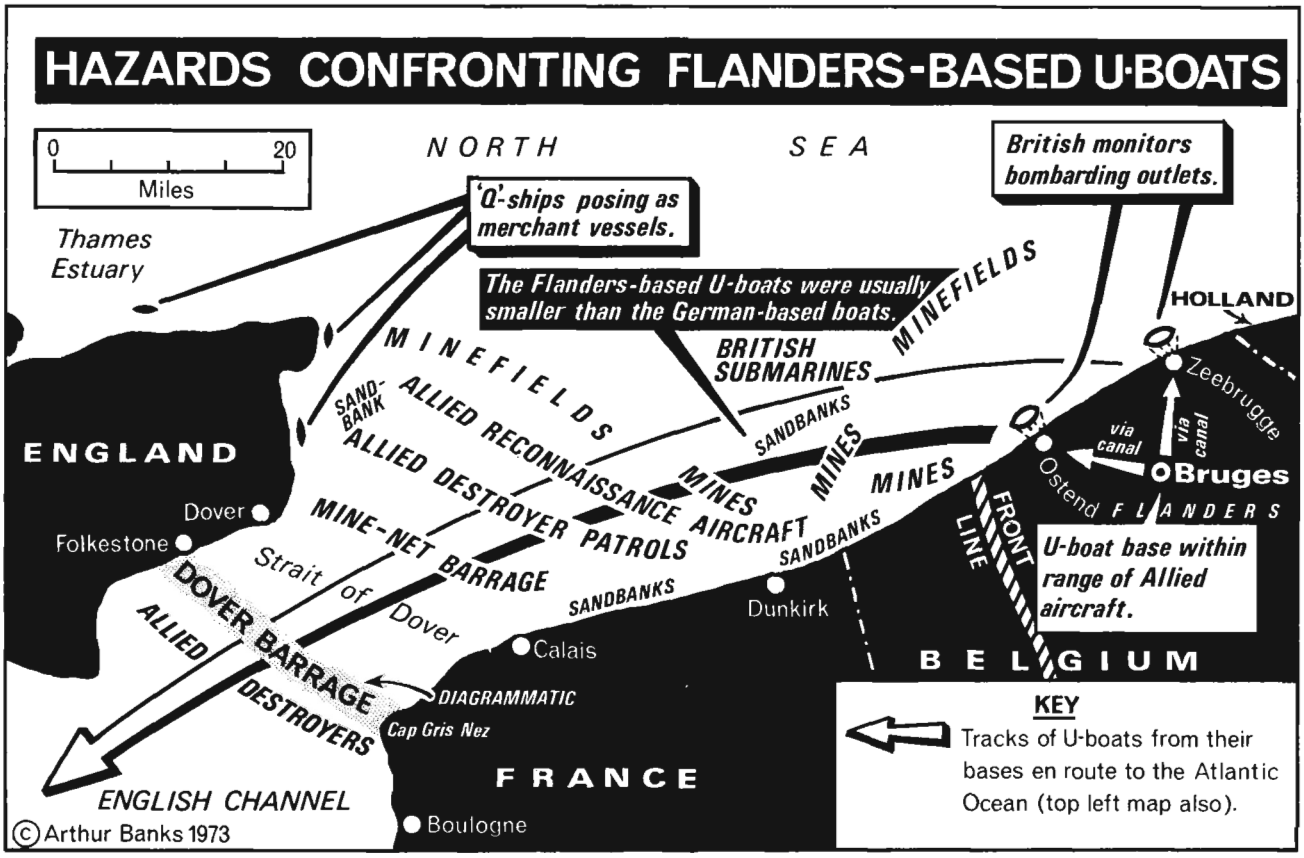

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# THE EFFECTIVENESS OF THE BRITISH CONVOY SYSTEM 1917–1918

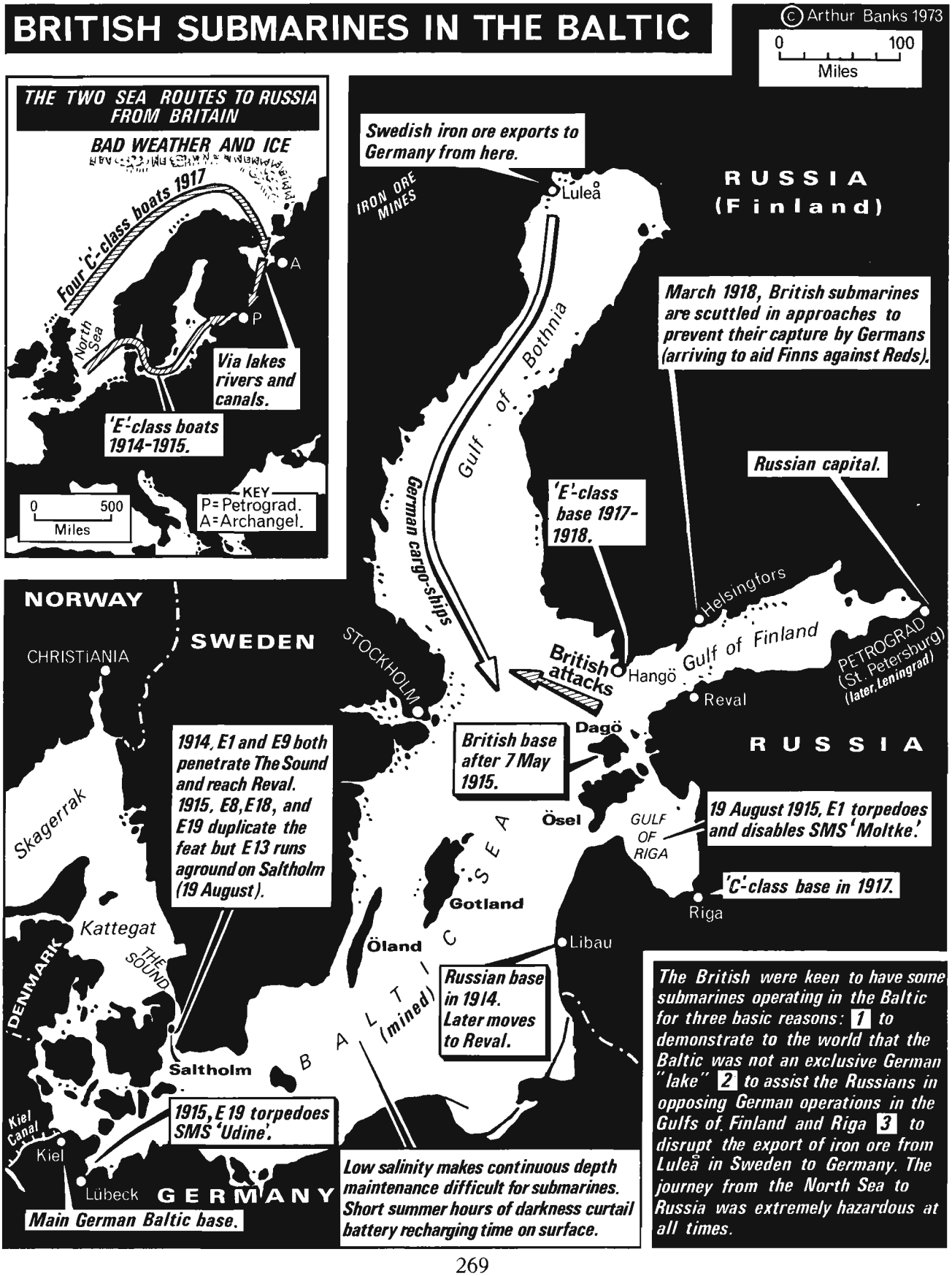



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HAZARDS CONFRONTING GERMAN-BASED U-BOATS
DIAGRAMMATIC
NORTHERN BARRAGE
NORWAY
Scapa Flow
BRITISH ARMED TRAWLERS (with hydrophones)
MINES
Cromarty
Rosyth
NORTH SEA
Skagerrak
BRITISH NAVAL PATROLS
DOGGER BANK
DEN-MARK
BRITAIN
MINEFIELDS
BRITISH SUBMARINES
MINES
HELIGOLAND
Kiel Canal
CUXHAVEN
WILHELMSHAVEN
EMDEN
HOLLAND
Harwich
MINES
MINES
0 100 Miles
SEALING THE NORTH SEA
THE NORTHERN BARRAGE
American-laid mines: 56,000
British-laid mines: 13,000
NORWAY
ATLANTIC OCEAN
SCOTLAND
AREA 'B'
AREA 'A'
AREA 'C'
NORTH SEA
Skagerrak
THE DOVER BARRAGE
ENGLAND
Mines laid: 9,000
Folke-stone
Dover
SHORE-OPERATED MINES
DEEP AND SURFACE MINES
THE VARNE
STRAIT OF DOVER
SEARCHLIGHTS
LE COLBART (The Ridge)
AT NIGHT
Calais
FRANCE
SHORE-OPERATED MINES


HAZARDS CONFRONTING FLANDERS-BASED U-BOATS
0 20 Miles
NORTH SEA
'Q'-ships posing as merchant vessels.
British monitors bombarding outlets.
Thames Estuary
The Flanders-based U-boats were usually smaller than the German-based boats.
MINEFIELDS
HOLLAND
BRITISH SUBMARINES
MINEFIELDS
SAND-BANK
ALLIED RECONNAISSANCE AIRCRAFT
SANDBANKS
Zeebrugge
via canal
via canal
ENGLAND
ALLIED DESTROYER PATROLS
MINES
MINES
MINES
Bruges
Ostend
FLANDERS
Dover
Folkestone
MINE-NET BARRAGE
Strait of Dover
SANDBANKS
SANDBANKS
FRONT LINE
U-boat base within range of Allied aircraft.
Dunkirk
DOVER BARRAGE
ALLIED DESTROYERS
Calais
BELGIUM
DIAGRAMMATIC
Cap Gris Nez
FRANCE
KEY
Tracks of U-boats from their bases en route to the Atlantic Ocean (top left map also).
ENGLISH CHANNEL
Boulogne
© Arthur Banks 1973

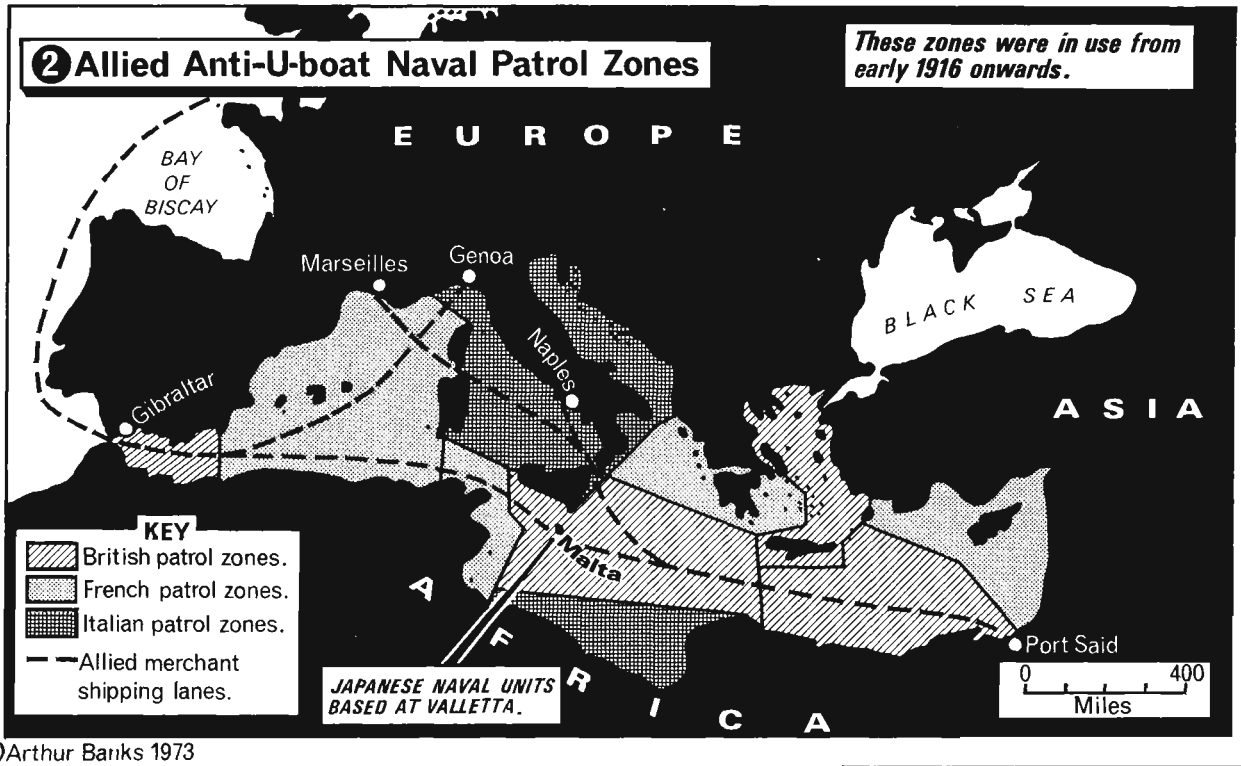
# BRITISH SUBMARINES IN THE BALTIC



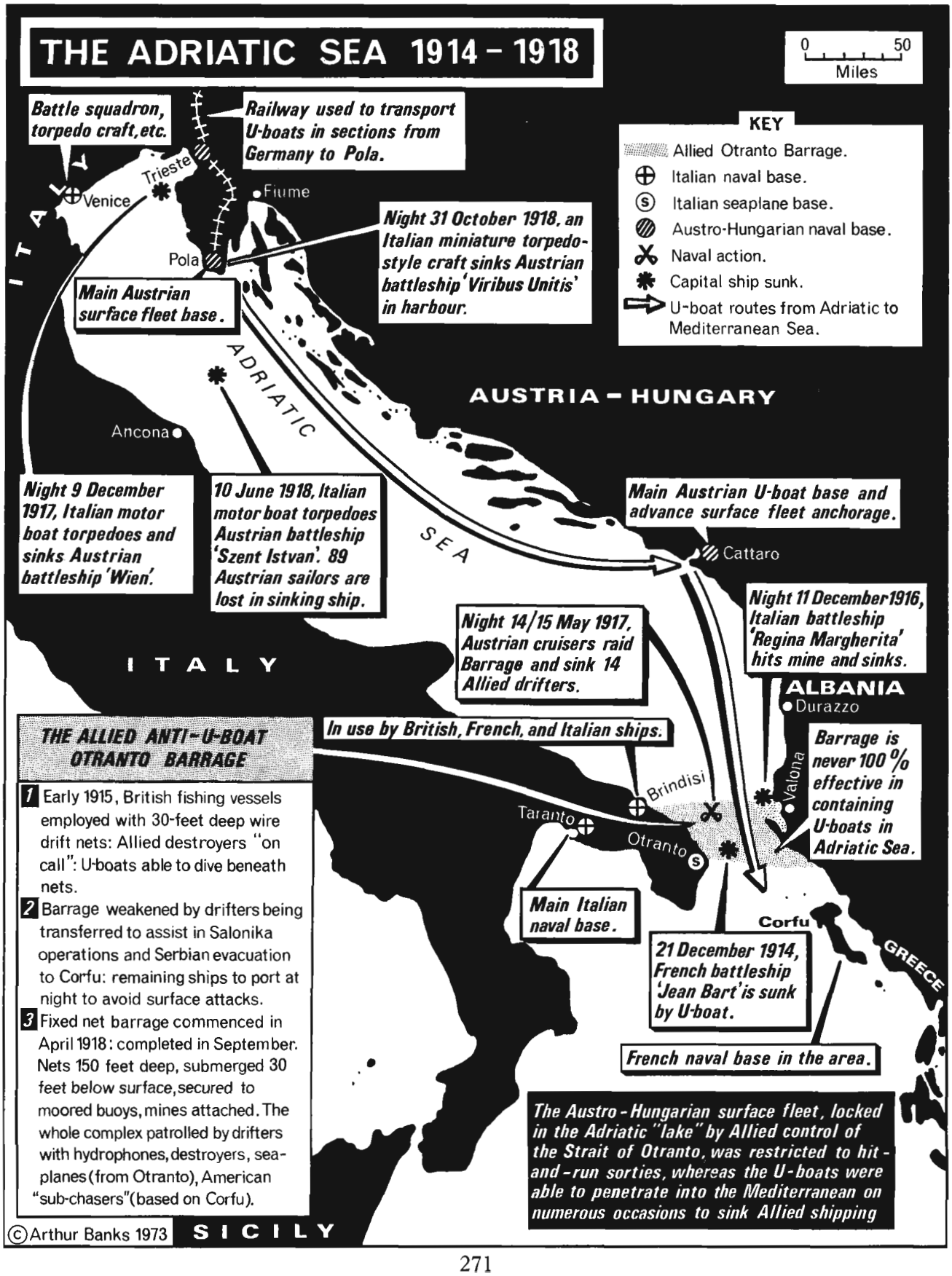
# THE MEDITERRANEAN SEA 1914 - 1918

*During 1917 alone, nearly 900 Allied merchant ships were sunk.*

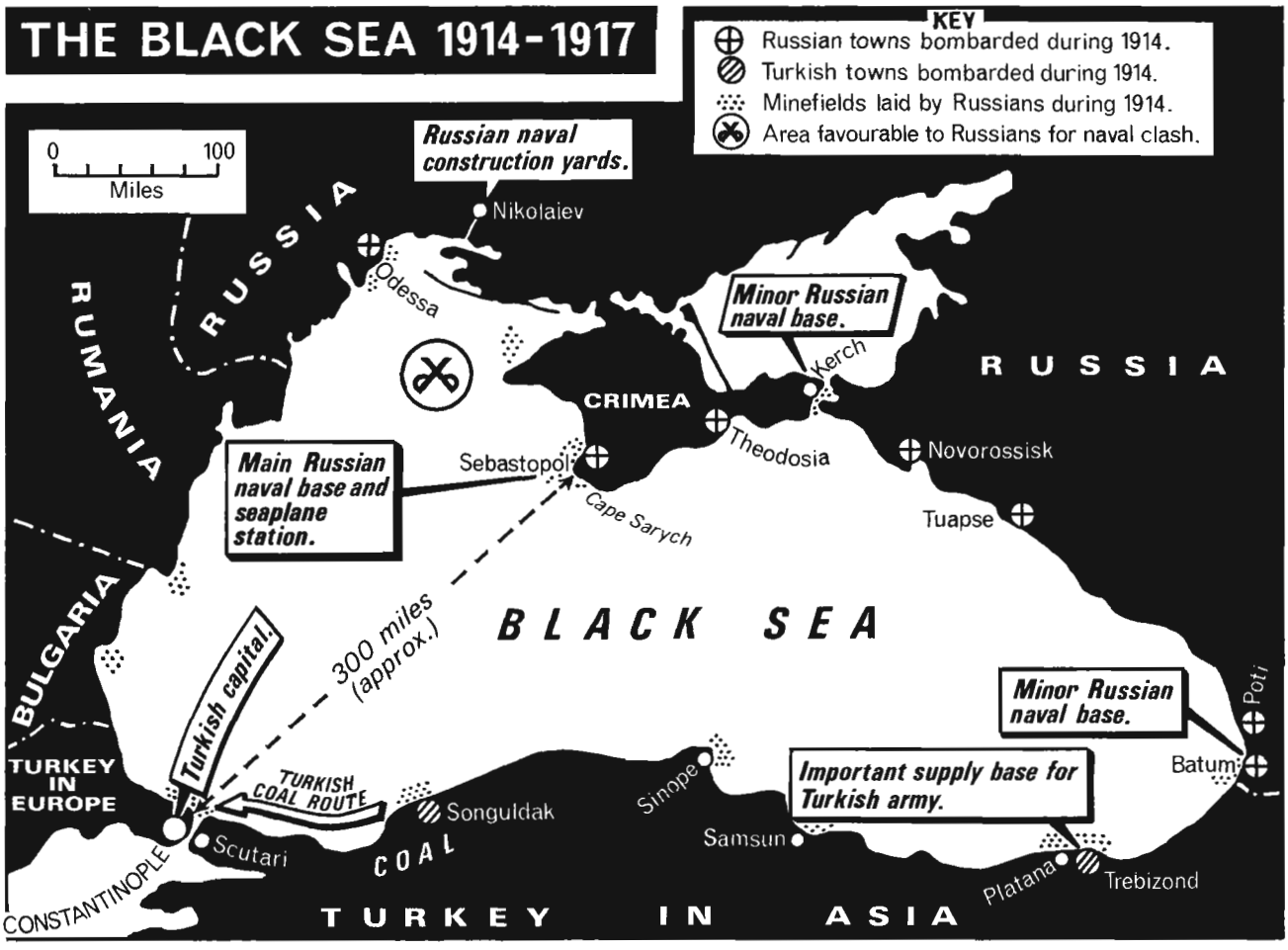



©Arthur Banks 1973


THE ADRIATIC SEA 1914 - 1918
0
50
Miles
KEY
Allied Otranto Barrage.
Italian naval base.
Italian seaplane base.
Austro-Hungarian naval base.
Naval action.
Capital ship sunk.
U-boat routes from Adriatic to Mediterranean Sea.
Battle squadron, torpedo craft, etc.
Railway used to transport U-boats in sections from Germany to Pola.
Venice
Trieste
Fiume
Pola
Night 31 October 1918, an Italian miniature torpedo-style craft sinks Austrian battleship 'Viribus Unitis' in harbour.
Main Austrian surface fleet base.
ITALY
ADRIATIC SEA
AUSTRIA - HUNGARY
Ancona
Night 9 December 1917, Italian motor boat torpedoes and sinks Austrian battleship 'Wien'.
10 June 1918, Italian motor boat torpedoes Austrian battleship 'Szent Istvan'. 89 Austrian sailors are lost in sinking ship.
Main Austrian U-boat base and advance surface fleet anchorage.
Cattaro
Night 11 December 1916, Italian battleship 'Regina Margherita' hits mine and sinks.
Night 14/15 May 1917, Austrian cruisers raid Barrage and sink 14 Allied drifters.
ITALY
ALBANIA
Durazzo
Valona
THE ALLIED ANTI-U-BOAT OTRANTO BARRAGE
In use by British, French, and Italian ships.
Barrage is never 100 % effective in containing U-boats in Adriatic Sea.
1 Early 1915, British fishing vessels employed with 30-feet deep wire drift nets: Allied destroyers "on call": U-boats able to dive beneath nets.
2 Barrage weakened by drifters being transferred to assist in Salonika operations and Serbian evacuation to Corfu: remaining ships to port at night to avoid surface attacks.
3 Fixed net barrage commenced in April 1918: completed in September. Nets 150 feet deep, submerged 30 feet below surface, secured to moored buoys, mines attached. The whole complex patrolled by drifters with hydrophones, destroyers, sea-planes (from Otranto), American "sub-chasers" (based on Corfu).
Brindisi
Taranto
Otranto
Main Italian naval base.
Corfu
GREECE
21 December 1914, French battleship 'Jean Bart' is sunk by U-boat.
French naval base in the area.
The Austro-Hungarian surface fleet, locked in the Adriatic "lake" by Allied control of the Strait of Otranto, was restricted to hit-and-run sorties, whereas the U-boats were able to penetrate into the Mediterranean on numerous occasions to sink Allied shipping
©Arthur Banks 1973
SICILY

# THE BLACK SEA 1914-1917




## RIVAL NAVAL STRENGTHS IN 1914

### RUSSIAN FLEET

5 Pre-Dreadnought Battleships.
2 Cruisers.
4 Destroyers.
4 Submarines.
(3 Dreadnought Battleships and 2 Cruisers under construction)

### TURKISH/GERMAN FLEET

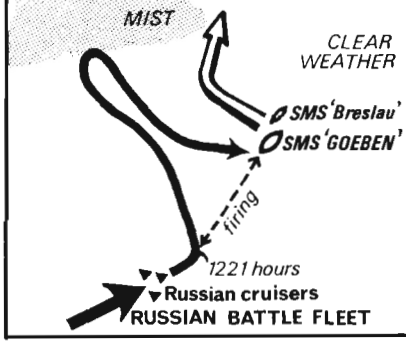
1 Battlecruiser (SMS 'Goeben').
3 Pre-Dreadnought Battleships.
3 Cruisers (including SMS 'Breslau').
2 Destroyers.

***The importance of the German warships must be stressed. SMS 'Goeben' was the most powerful warship in the area in 1914.***

© Arthur Banks 1973

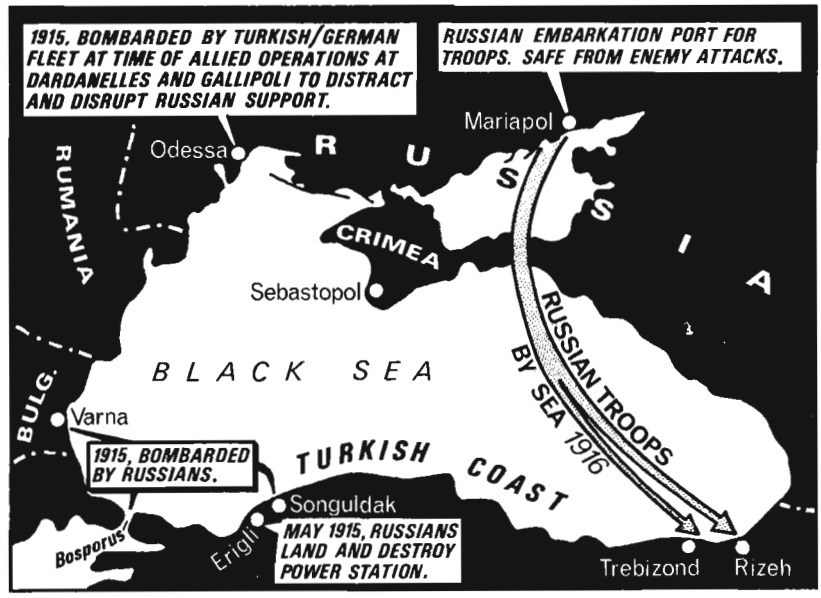
*In 1914, the Black Sea naval scene was basically as follows: the Turkish/German fleet was intent on sorties from Constantinople to bombard Russian ports (spearheaded by SMS 'Goeben', the most powerful warship in the area). The Russians, eager to disrupt Turkish coal supplies by sea from Songuldak to Constantinople (there was no land railway link), yearned for a supply base on the Bulgarian coastline to shorten the distance between Sebastopol and Constantinople. They laid minefields off Turkish ports to impede enemy sorties, and entertained hopes that if a major naval confrontation occurred, it would take place between Odessa and Sebastopol, within range of Russian seaplanes.*

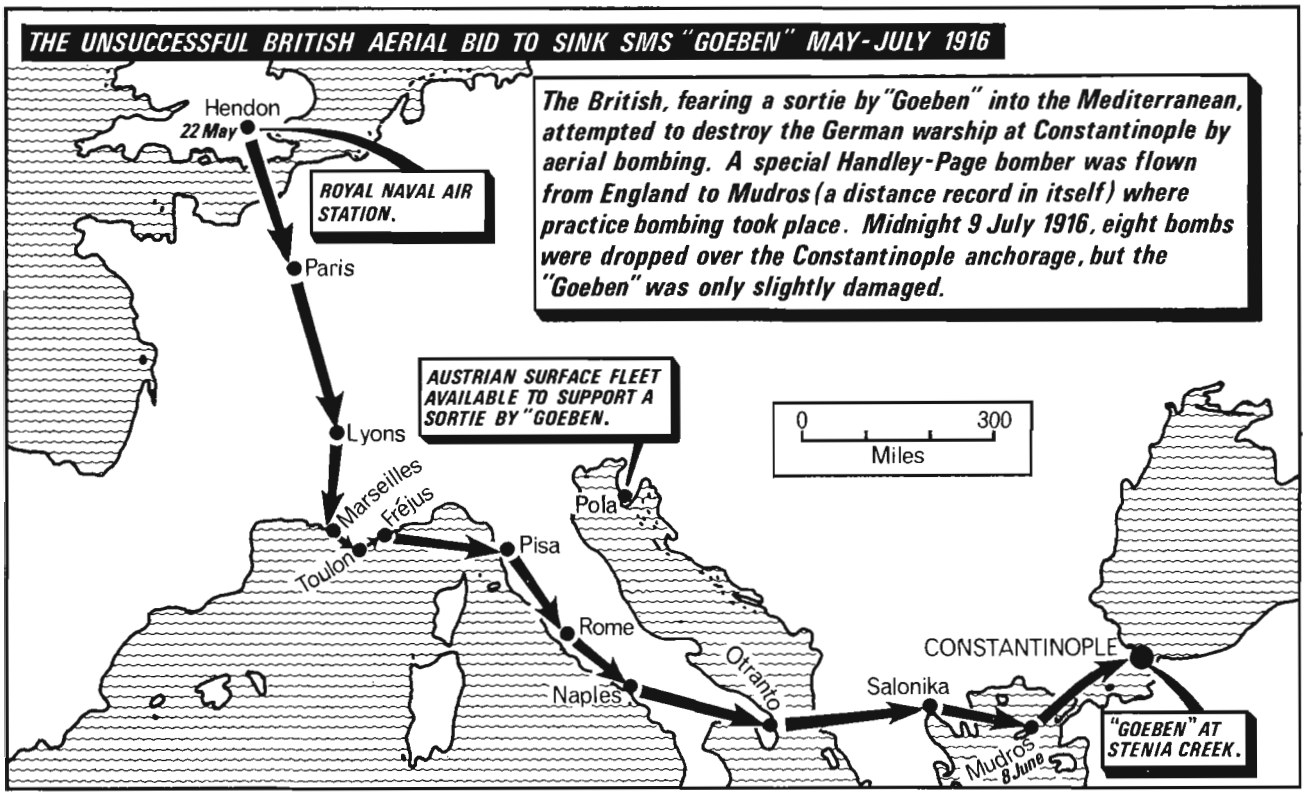
## THE NAVAL CLASH OFF CAPE SARYCH 18 NOVEMBER 1914

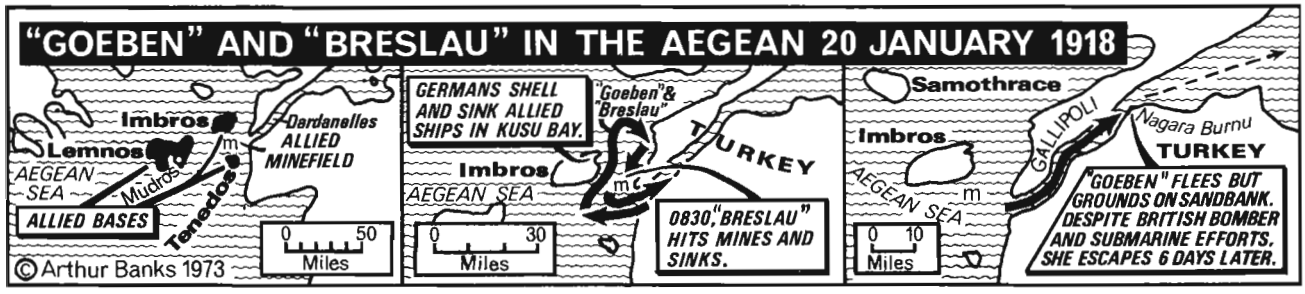



***This 14-minute action marked the first encounter between 'Goeben' and Russian capital ships. The old pre-dreadnoughts equalled the 'Goeben's' hit-rate of 10% from salvoes fired before the Germans broke off. There were 14 hits on 'Goeben' causing casualties of 115 killed and 59 wounded.***

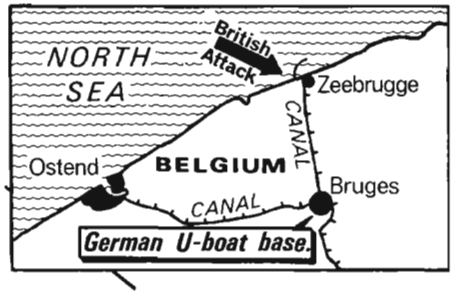
*During 1915, two new dreadnoughts came into service with the Russian Black Sea fleet. These battleships, "Imperatritsa Maria" and "Ekaterina II," altered the naval balance of power, although the former was sunk at Sebastopol in the following year (27 October 1916): SMS "Goeben" made her final Black Sea sortie on 8 January 1916. In September 1915, U-boats appeared in the Black Sea, and in that year Bulgaria joined the Central Powers. Rumania became involved in 1916. There was no all-out naval clash, but several fights took place, sometimes involving Russian seaplanes. Russian troops were transported across the sea to fight on the Turkish shore. Trebizond was captured in April 1916 and used as a military port.*



# THE BRITISH RAID ON ZEEBRUGGE 23 APRIL 1918




Planned positions of 'Vindictive,' 'Iris,' and 'Daffodil.'

'Iris'

'Vindictive'

'Daffodil'

Lighthouse

Mole battery

First position of 'Iris.'

Barge and net boom.

V69
S53
S63
A27
A30
A43
A49

German destroyers.

Dredger.

U-boat shelter

High outer wall

MOLE

Fouled by 'Thetis.'

Dry at low water

Note: a similar attempt to block Ostend ended in failure. 9/10 May, 'Vindictive' was sunk in the exit channel (blocking approx. one-third of it).

Seaplane base

C3

'Thetis'

Viaduct

The raid, on St. George's Day, blocked the harbour at Zeebrugge for a short period, but U-boats were soon operating normally. Nevertheless, the attack was a great 'morale booster' for the British at this time.

DRY AT LOW WATER

DRY AT LOW WATER

Trenches and machine gun emplacements.

'Iphigenia'

'Intrepid'

Göben Battery

Württemberg Battery

Lock and swing bridge.

← to Bruges ENTRANCE TO CANAL

BASIN

0 1,000 Feet

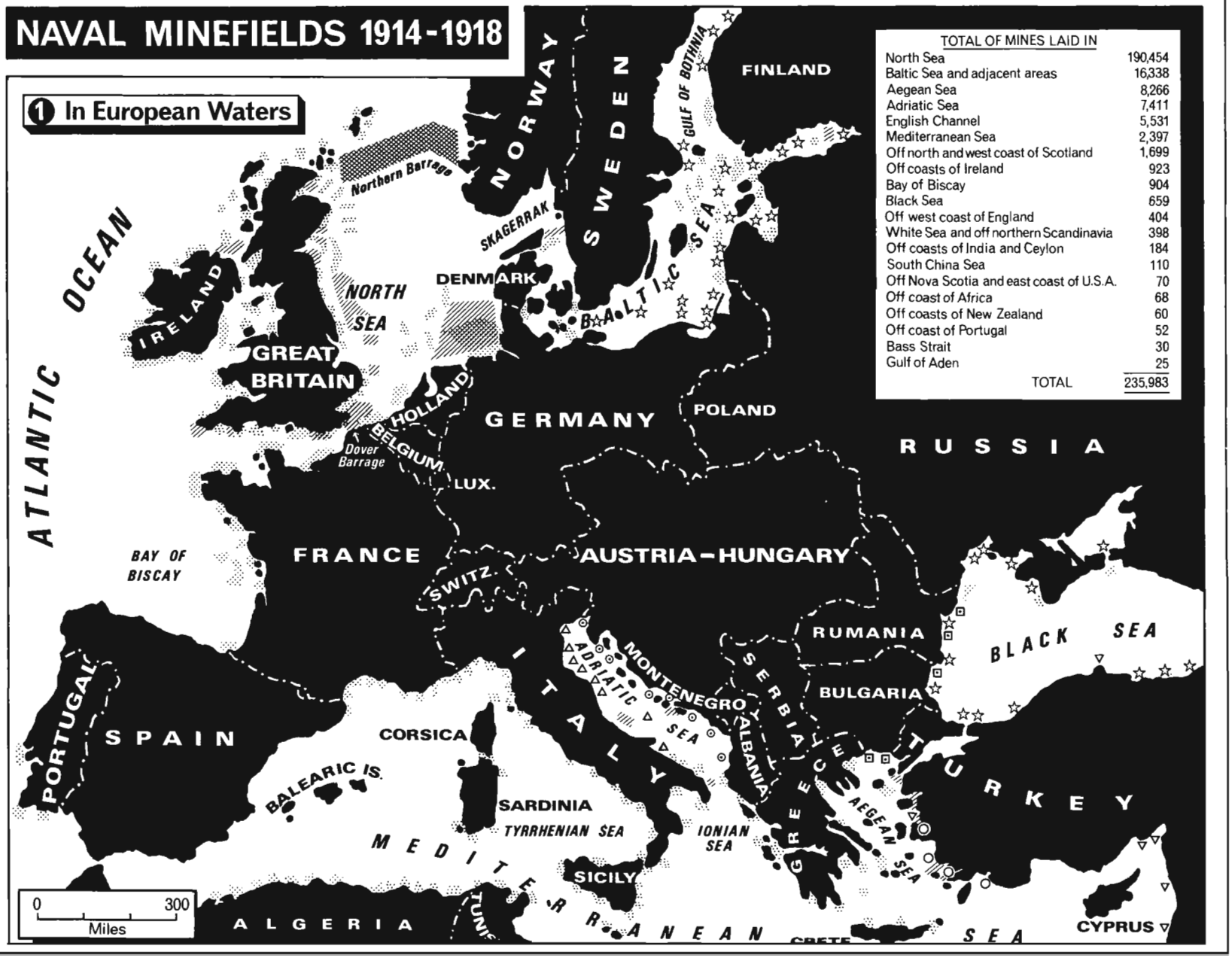
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KEY

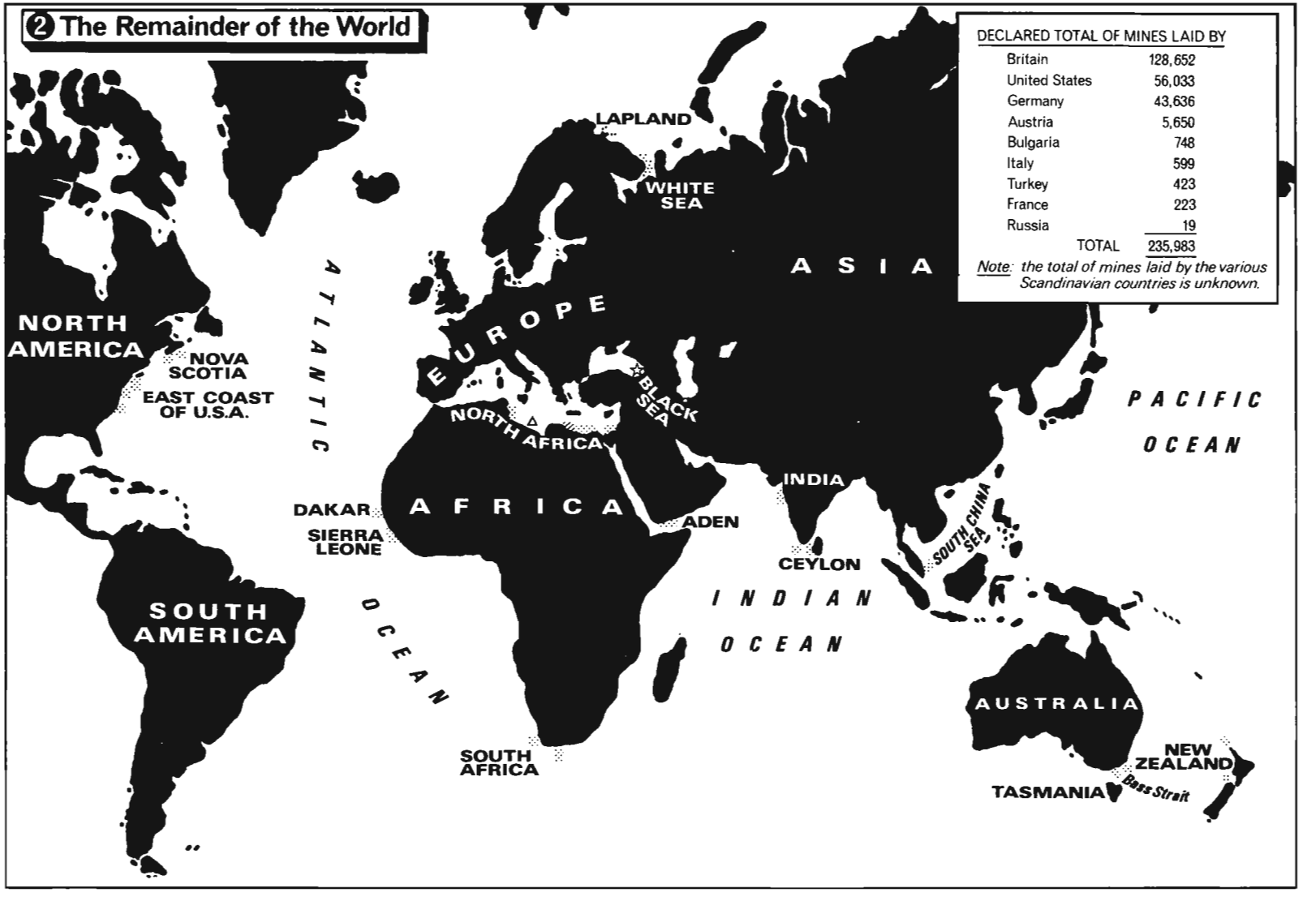
- Course of 'Vindictive,' 'Iris,' and 'Daffodil.'
- Course of 'Intrepid' and 'Iphigenia.'
- Course of 'Thetis.'
- Course of submarine C3.
- Net obstruction.


GERMAN PLANS FOR A FINAL NAVAL CONFRONTATION OCTOBER 1918
0
100
Miles
Note: the Germans appeared to consider Scapa Flow as the main British naval base. In fact, this had been moved to Rosyth in April 1918.
Night 28 October, UB116 is destroyed by electrically-detonated loop-style minefield in Hoxa Sound.
Shetland Islands
Fair Isle
ATLANTIC OCEAN
Orkney Islands
UB116
Scapa Flow
NORWAY
seven Zeppelins to be sent to report Grand Fleet's movements
Skagerrak
U-boats to patrol this area.
SCOTLAND
assumed British line of approach
28 October, U78 is torpedoed and sunk by the British sub. G2.
British naval base.
Rosyth
DENMARK
N O R T H S E A
U78
Germans hope to bring about the action in this area (favourable for them).
German light cruisers to lay mines in British path.
IRELAND
IRISH SEA
Jade Bay
Frisian Islands
Wilhelmshaven
German naval base.
WALES
ENGLAND
Harwich
HOLLAND
GERMANY
Light cruiser sorties to entice the British south from Scapa.
BELGIUM
English Channel
FRANCE
In an attempt to influence the Armistice negotiations,* the German naval authorities formulated plans to bring about the long-awaited clash between the German and British battle fleets. It came to naught due to mutinies and demoralization among the German crews. However, twenty-five U-boats actually set sail on 25 October, and two were destroyed by the British
*Historical note: In June 1667, de Ruyter's Dutch raid on the Medway influenced the peace negotiations for the Treaty of Breda in July 1667.
© Arthur Banks 1973

# NAVAL MINEFIELDS 1914-1918



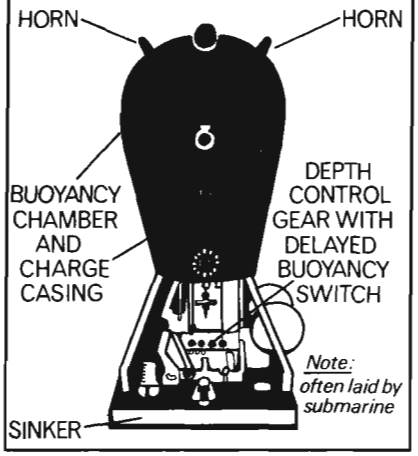

| TOTAL OF MINES LAID IN | |
|---|---|
| North Sea | 190,454 |
| Baltic Sea and adjacent areas | 16,338 |
| Aegean Sea | 8,266 |
| Adriatic Sea | 7,411 |
| English Channel | 5,531 |
| Mediterranean Sea | 2,397 |
| Off north and west coast of Scotland | 1,699 |
| Off coasts of Ireland | 923 |
| Bay of Biscay | 904 |
| Black Sea | 659 |
| Off west coast of England | 404 |
| White Sea and off northern Scandinavia | 398 |
| Off coasts of India and Ceylon | 184 |
| South China Sea | 110 |
| Off Nova Scotia and east coast of U.S.A. | 70 |
| Off coast of Africa | 68 |
| Off coasts of New Zealand | 60 |
| Off coast of Portugal | 52 |
| Bass Strait | 30 |
| Gulf of Aden | 25 |
| TOTAL | 235,983 |



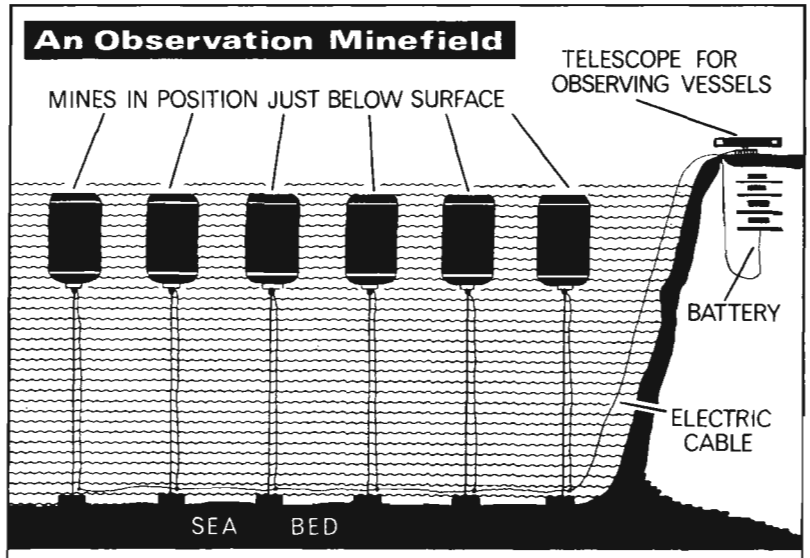

© Arthur Banks 1973

# NAVAL MINING

## German contact mine

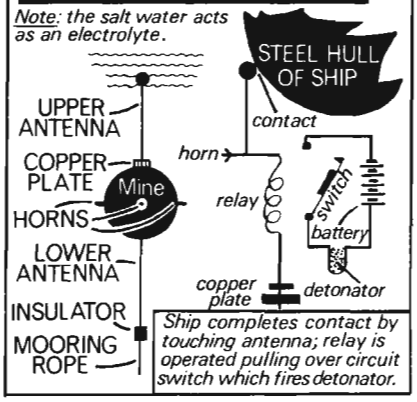



## An Observation Minefield



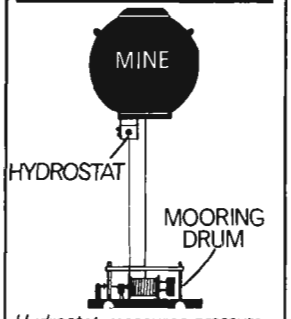

This system was employed at harbour entrances. Shore observers fired the mines by electrical methods at the moment when a hostile ship passed over the line.

## The Antenna Mine



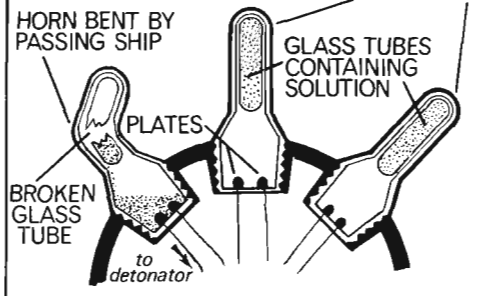

*Ship completes contact by touching antenna; relay is operated pulling over circuit switch which fires detonator.*

## Hydrostatic depth-taking



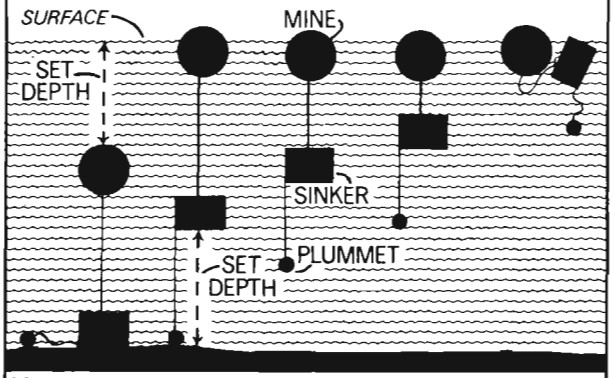

*Hydrostat measures pressure of water and applies brake after sufficient cable is released.*

## The "HERZ" Horn



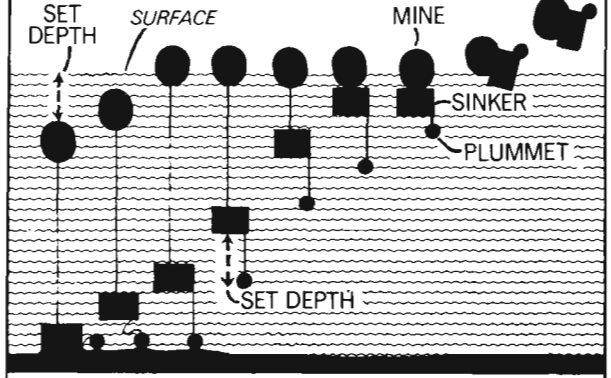

The inside of the horn is similar to an electrical battery. A bichromate solution comes in contact with zinc and carbon plates, thus making voltage.

## Plummet system of automatic depth-taking (non-buoyant unit)




Mine parts from sinker upon laying; thus, an unknown length of wire spins out before unit settles, making laying haphazard.

## Plummet system of automatic depth-taking (buoyant unit)




Mine stays with sinker until equilibrium is established. Thus, depth-taking with this system is more accurate and precise.

© Arthur Banks 1973

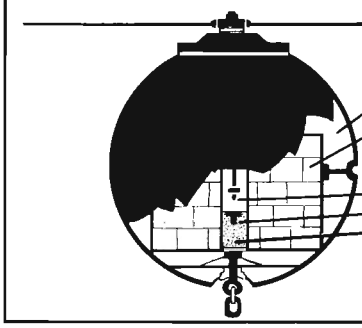
# SEVEN IMPORTANT NAVAL MINES 1914 – 1918

TYPES OF MINE

CONTROLLED MINES (employed defensively, e.g. placed at harbour entrances). Fired from shore via electric wire.

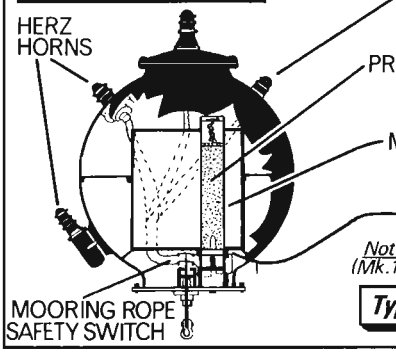
INDEPENDENT MINES (employed both offensively and defensively in open sea, off coasts, etc. Types included moored, sea-bed, drifting, creeping, and oscillating.

## British "SERVICE"




*Type: moored mine*

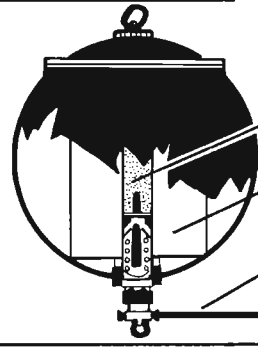
## British "H.2"




*Note: Mk.2 version shown. (Mk.1 had no top cover plate)*

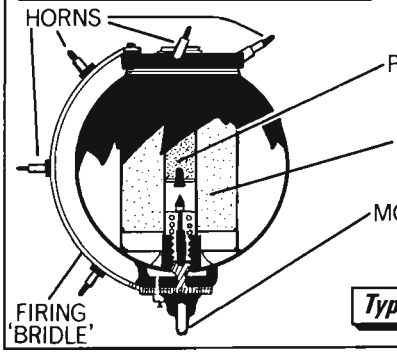
*Type: moored mine*

## British "ELIA"



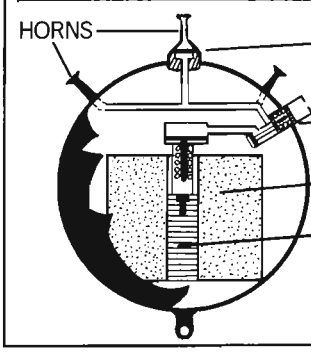

*Type: moored mine*

## French "BREGUET"



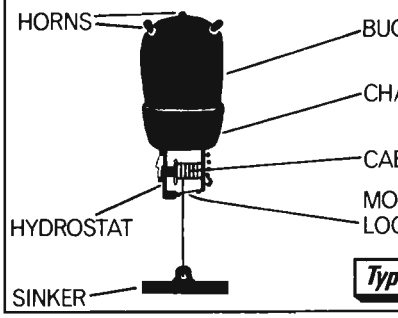

*Type: moored mine*

## French "SAUTER-HARLÉ"



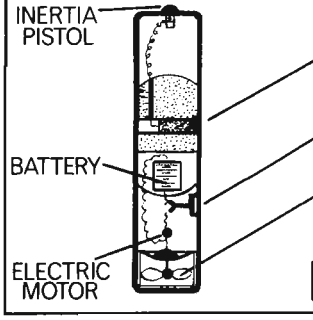

*Type: moored mine*

## German "CARBONIT"




*Type: moored mine*

## Swedish-designed "LÉON"

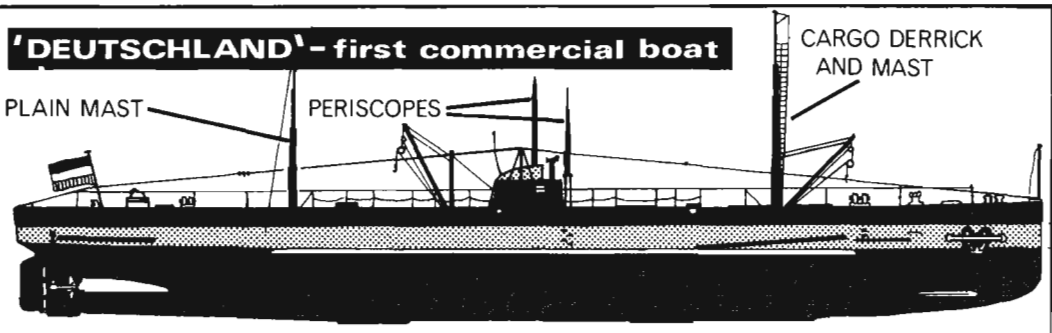



*Type: oscillating mine*

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# SUBMARINE DEVELOPMENT DURING THE WAR

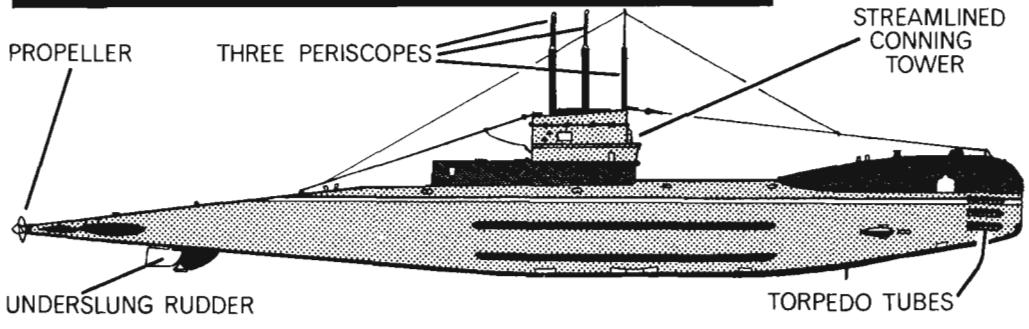
## 'DEUTSCHLAND' – first commercial boat




Surface displ'm't: 1512 tons.

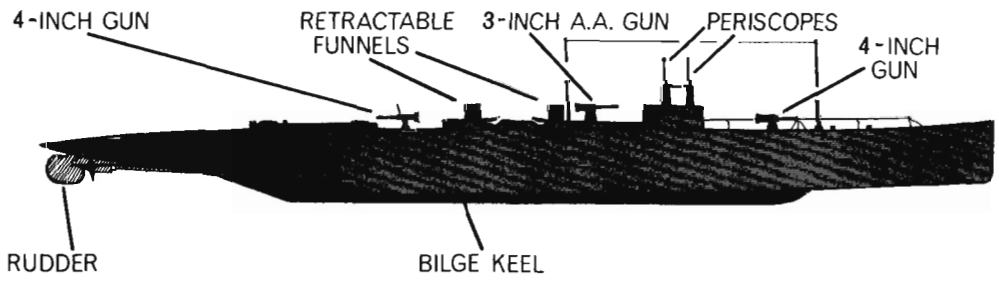
Length: 213 feet.
Beam: 29 feet.
Maximum surface speed: 12·4 knots.
Maximum submerged speed: 5·2 knots.
Complement: 56.

## British R.1 – first hunter killer submarine



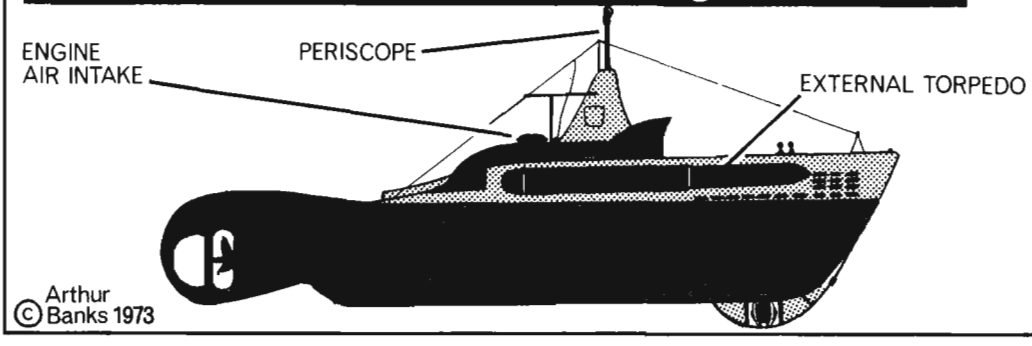

Surface displacement: 410 tons.
Length: 163 feet.
Beam: 16 feet.
Maximum surface speed: 9·5 knots.
Maximum submerged speed: 15 knots.
Complement: 22.

## British K.3 – first successful steam submarine




Surface displacement: 1,750 tons.
Length: 351 feet.
Beam: 28 feet.
Maximum surface speed: 24 knots.
Maximum submerged speed: 10 knots.
Complement: 50.

## Italian Class 'B' – first successful midget submarine




Arthur © Banks 1973

Surface displacement: 40 tons.
Length: 50 feet.
Beam: 7·5 feet.
Maximum surface speed: 6·9 knots.
Maximum submerged speed: 5 knots.
Complement: 5.

# THE WAR IN THE AIR

On 1 November 1911 a primitive Italian aeroplane, supporting military operations in Libya, dropped four specially modified grenades on Turkish troops near Zuwarah. The pilot of the aircraft, Lieutenant Cavotti, was thus inaugurating a new and terrible phase of warfare, less than eight years since the first heavier-than-air machine had lifted off the ground. The French, German and American armies were already, in 1911, experimenting with aircraft, though they were uncertain how to use them. The British War Secretary, Haldane, took the lead in establishing a Royal Flying Corps in 1912, while at the Admiralty Churchill warmly supported the aeronautical enterprises (and himself took flying lessons). But by 1914 military and naval leaders, if not actively hostile to 'an air arm', saw in planes and airships little more than reconnaissance machines and gunnery spotters.

The only combatant possessing an aerial fleet of any significance was Germany, with eleven rigid airships, all except one manufactured by Count Zeppelin. During the early months of the war these craft bombed Liége, Antwerp and Warsaw. They proved, however, vulnerable to gunfire when used in close support of the army, and, at the beginning of 1915, it was decided that they would be most effective against targets in England, bringing 'terror to the people of London'. Navigational difficulties saved London from raids on several occasions (and similarly ruled out projected attacks on Petrograd), but the British capital was attacked by Zeppelins twelve times between May 1915 and October 1917. There were forty other raids on Britain, with bombs dropped in the Midlands, Liverpool, Newcastle and Hull as well as East Anglia and the Home Counties. Night bombing by Zeppelins interfered with efficiency in vital factories. Subsequently this role was assumed by aircraft, and the ten night raids of September–October 1917 (see page 296) had a particularly bad effect on civilian morale.

The Zeppelins which raided England in August 1915 were faster and bigger than the craft of a year earlier: they carried twice the weight of bombs. Without these technological improvements, it would have been impossible to mount what was, in effect, a strategic air offensive against civilian and military targets. But improvements to airships were equalled by developments in aeroplane construction. The most revolutionary of these was Anthony Fokker's invention of an interrupter, a cam which could stop a machine gun firing when the propeller blade swept across the muzzle. This device made the fighter aircraft a weapon in itself. German Fokkers were able to check the mounting pressure by the French bombing planes, an arm in which Joffre himself had long been interested. The British developed DH 4s and DH 9s as light bombers to attack front line troops, and depended on the manoeuvrable Sopwith Camel and S.E. 5a as the principal fighters. The Royal Naval Air Service used seaplane carriers during the Dardanelles Operations and experimented with dropping torpedoes from aircraft, a technique which could be perfected only with more powerful engines, giving a greater impetus.

The 'dog fight', a new form of combat creating its own tactics, gave the opportunity for individualists to make themselves reputations as 'aces'. Yet by the spring of 1917 the most famous of these German aces, Richthofen, was himself perfecting a 'circus', a squadron which was standardising at a rate technical level the accumulated skills of air fighting. Nor were these developments limited to the German side.

By the last winter in the war the British Government had so far accepted the significance of air power that on 1 April 1918, it created a third military service, a Royal Air Force with an 'Air Staff', totally independent of army and navy. The light bombers of the R.A.F. played a prominent part in the final defeat of the Bulgarians in the Balkan mountains and of the Turks in the coastal plain of Palestine; but the authorities were more interested in the effects of strategic bombing on Germany's factories.

# GERMAN AIRSHIPS



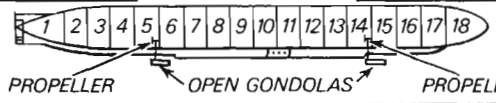

## GERMAN AIRSHIP RAIDS ON BRITAIN 1915-1918

| YEAR | NUMBER OF RAIDS | BOMBS DROPPED (All types) | CIVILIANS KILLED | CIVILIANS INJURED |
|---|---|---|---|---|
| 1915 | 20 | 1,525 | 207 | 533 |
| 1916 | 22 | 3,458 | 293 | 691 |
| 1917 | 7 | 580 | 40 | 75 |
| 1918 | 4 | 188 | 16 | 59 |
| TOTALS | 53* | 5,751 | 556 | 1,358 |

*Note: London was attacked on twelve occasions*

## L.3 – First Zeppelin to raid Britain

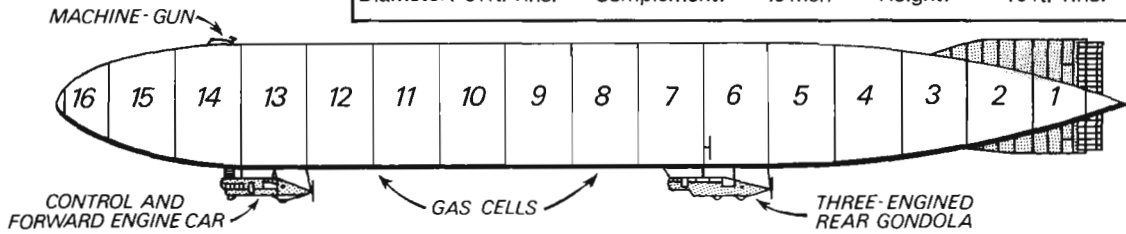
Complement: 16 men — GAS CELLS — Maximum speed: 48 m.p.h.



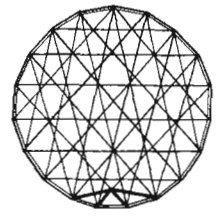

| | | | |
|---|---|---|---|
| Completed: | 11 May 1914 | Gas volume: | 794,500 cubic ft. |
| Commissioned: | 23 May 1914 | Height: | 60ft. 3ins. |
| Length: | 518 ft. 2 ins. | Diameter: | 48ft. 6ins. |

## Zeppelin "P" Type

Length: 536 ft. 5 ins. Maximum speed: 59 m.p.h. Gas volume: 1,126,400 cubic ft.
Diameter: 61 ft. 4 ins. Complement: 16 men Height: 79 ft. 4 ins.




| NAVAL NUMBER | COMMISSIONED | ACTUAL RAIDS | TOTAL FLIGHTS | TERMINATION OF SERVICE |
|---|---|---|---|---|
| **L.10** | 17 May 1915 | 5 | 28 | 3 September 1915: destroyed off Neuwerk I. |
| **L.11** | 8 June 1915 | 18 | 118 | 24 November 1917: dismantled at Hage. |
| **L.12** | 22 June 1915 | 1 | 14 | 10 August 1915: burned at Ostend. |
| **L.13** | 25 July 1915 | 17 | 159 | 11 December 1917: dismantled at Hage. |
| **L.14** | 10 August 1915 | 17 | 127 | 23 June 1919: wrecked at Nordholz. |
| **L.15** | 12 September 1915 | 3 | 36 | 1 April 1916: sank in sea at Knock Deep. |
| **L.16** | 24 September 1915 | 16 | 132 | 19 October 1917: wrecked at Nordholz. |
| **L.17** | 22 October 1915 | 11 | 73 | 28 December 1916: burned at Tondern. |
| **L.18** | 6 November 1915 | 0 | 4 | 17 November 1915: burned at Tondern. |
| **L.19** | 22 November 1915 | 1 | 14 | 2 February 1916: sank in North Sea. |



MAIN RING BRACING

### THE THREE BASIC TYPES OF AIRSHIP

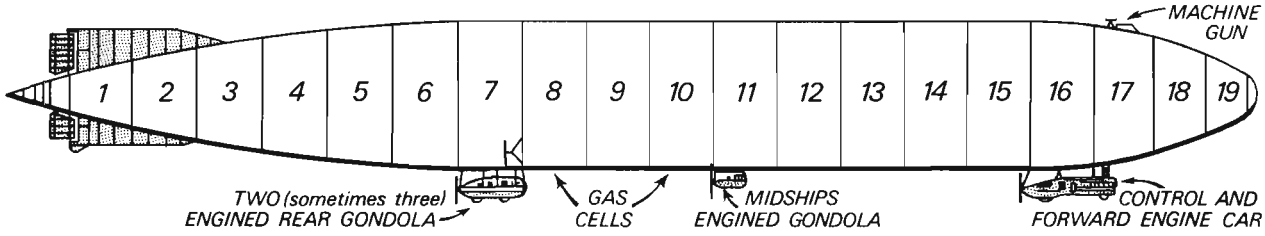
1. Non-rigid
   A balloon, the shape of which was held by internal pressure.
2. Semi-rigid
   A shaped balloon with a rigid girder to which the main weights were slung.
3. Rigid
   A group of balloons inside a rigid frame with, usually, a fabric cover.

***During the war, the Germans manufactured two main types of rigid airships, the Schütte-Lanz and the Zeppelin. The early S.L.'s were wooden-framed, and the Zeppelins metal-framed (the metal used was duralumin). Hydrogen was the gas employed, and Germany paid particular attention to purity to avoid explosions.***

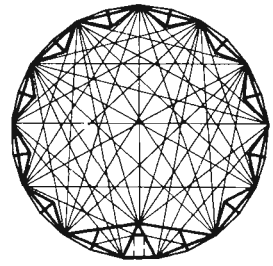
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## Zeppelin "R" Type

Length: 644ft. 8ins. Maximum speed: 64 m.p.h. Gas volume: 1,949,600 cubic ft.
Diameter: 78ft. 5ins. Complement: 19 men Height: 90ft.10ins.




| NAVAL NUMBER | COMMISSIONED | ACTUAL RAIDS | TOTAL FLIGHTS | TERMINATION OF SERVICE |
|---|---|---|---|---|
| **L.30** | 30 May 1916 | 9 | 115 | Broken up in 1920: parts to Belgium. |
| **L.31** | 14 July 1916 | 8 | 19 | 2 October 1916: destroyed at Potters Bar. |
| **L.32** | 7 August 1916 | 3 | 13 | 24 September 1916: destroyed at Gt.Burstead. |
| **L.33** | 2 September 1916 | 1 | 10 | 24 Sept. 1916: captured at Little Wigborough. |
| **L.34** | 22 September 1916 | 2 | 11 | 27 November 1916: destroyed off Hartlepool. |
| **L.35** | 12 October 1916 | 5 | 54 | September 1918: broken up at Jüterbog. |
| **L.36** | 7 November 1916 | 1 | 20 | 7 February 1917: crashed on frozen River Aller. |
| **L.37** | 27 November 1916 | 4 | 50? | Broken up in 1920: parts to Japan. |
| **L.38** | 26 November 1916 | 1 | 10 | 29 December 1916: captured at Seemuppen. |
| **L.39** | 18 December 1916 | 1 | 24 | 17 March 1917: destroyed at Compiègne. |
| **L.40** | 7 January 1917 | 2 | 30 | 17 June 1917: dismantled at Nevenwald. |
| **L.41** | 30 January 1917 | 4 | 36 | 23 June 1919: destroyed at Nordholz. |
| **L.45** | 7 April 1917 | 3 | 27 | 20 October 1917: captured at Sisteron. |
| **L.47** | 3 May 1917 | 4 | 44 | 5 January 1918: destroyed at Alhorn. |
| **L.50** | 12 June 1917 | 2 | 19 | 20 October 1917: lost in Mediterranean. |



MAIN RING BRACING

*Note: there were minor design variations in certain of the 'R'- type airships. Gondolas were altered here and there to improve the performance of engines and propellers.*

### GERMAN AIRSHIP BASES IN THE EASTERN BALTIC

*On 26 January 1915, the German Naval Airship Division lost its first airship of the war when the Parseval PL.19 set out from the Army shed near Königsberg to raid the Russian naval base at Libau. It crashed in the Baltic seven miles from the coast after severe icing which jammed a propellor and fractured an engine. Finally, the envelope buckled due to loss of pressure.*



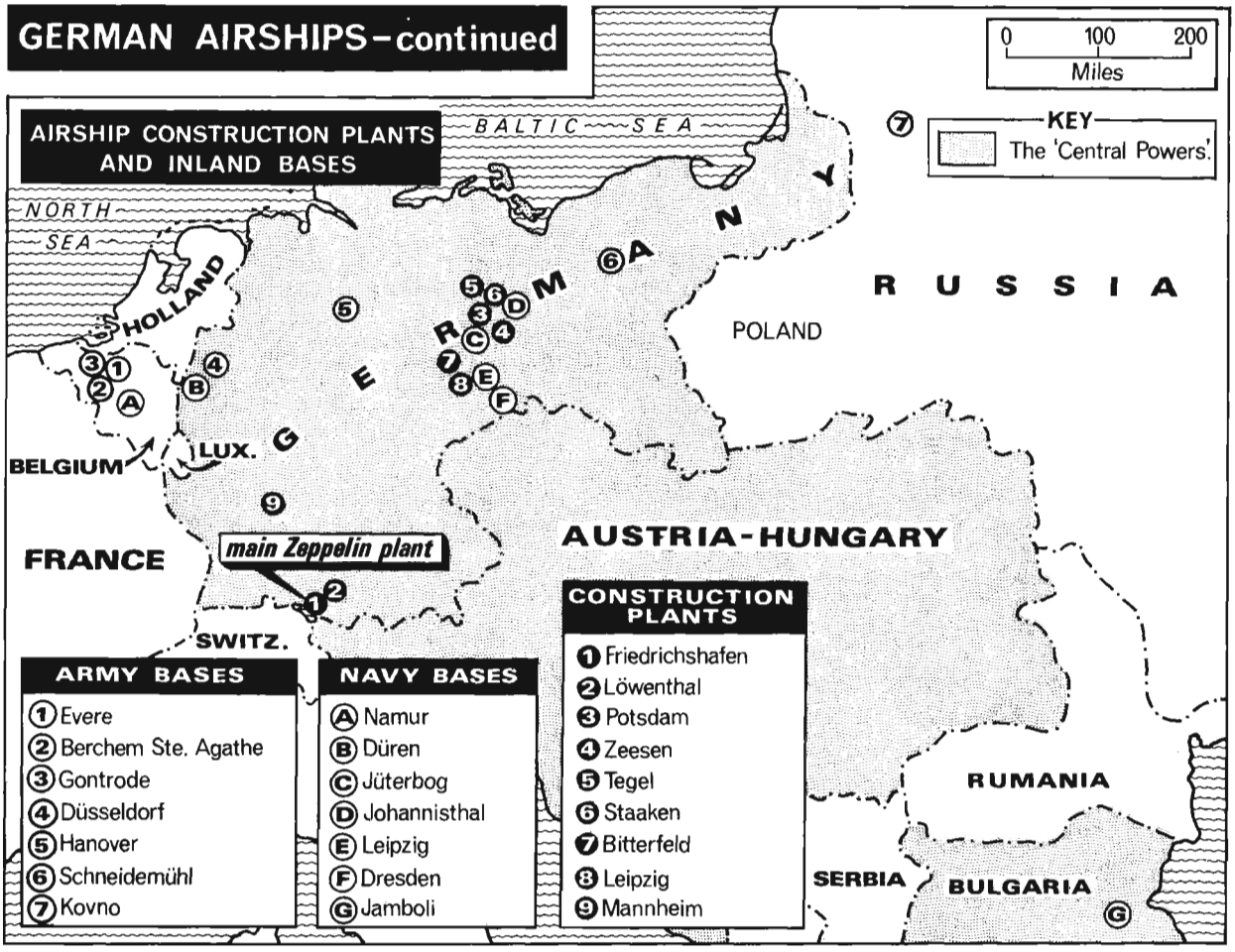

***During the night of 21-22 March 1915, three German army airships attempted to raid Paris. The ZX and the LZ. 35 dropped seven high explosive and 45 incendiaries on Paris and its suburbs, killing one civilian and injuring a further eight. Hit by ground fire, the ZX was destroyed at St. Quentin on the return trip. Damaged by gunfire, the third airship (Schütte-Lanz SL.2) never reached the French capital, but distributed her bombs over Compiègne.***

***During the war, both the naval and the army airship services made unsuccessful attempts to raid the Russian capital of St. Petersburg (Petrograd). Distance alone prevented success during the early period, but the main problem throughout was bad weather. Ice and snow fouled engines and propellors, congealed oil, and made airships top-heavy and unstable.***

***Airships worked as scouts with the German navy and were present at a number of sea battles, such as Jutland and Dogger Bank. However, they were never used in conjunction with the U-boat offensive in the Atlantic.***

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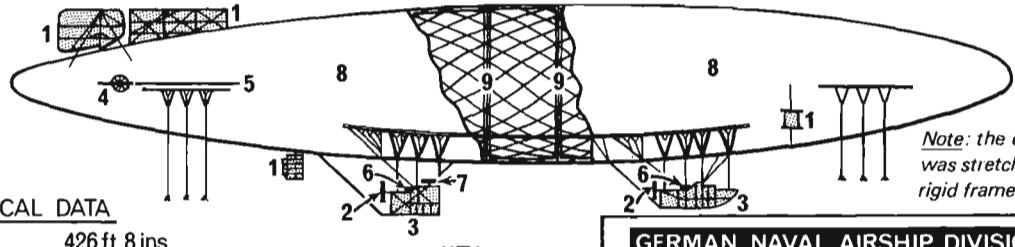
# GERMAN AIRSHIPS–continued




***On 5 January 1918, five German airships were destroyed in a sudden and still-unexplained fire at Alhorn. Zeppelins L.46, L.47, L.51, and L.58, plus the Schütte-Lanz SL.20, were involved and the German Naval Airship Division lost 10 men dead, 30 seriously injured, and 104 slightly injured. A further 4 civilian technicians were killed. The most widely held theory is that the blaze originated in the rear gondola of L.51 through the use of petroleum as a cleaning agent by civilian workmen. The German airship service never properly recovered from this disaster.***

## Airship SCHÜTTE-LANZ

Designed by Professor Schütte and Dr. Lanz. Built in October 1912.




*Note: the envelope was stretched on a rigid frame of plywood.*

TECHNICAL DATA

| | |
|---|---|
| Length: | 426 ft. 8 ins. |
| Diameter: | 59 ft. 1 in. |
| Total weight: | 17,196 lb. |
| Engines: | 2 Daimler's (total 500 h.p.) |
| Gas employed: | Hydrogen |
| Gas capacity: | 706,320 cubic ft. |

KEY

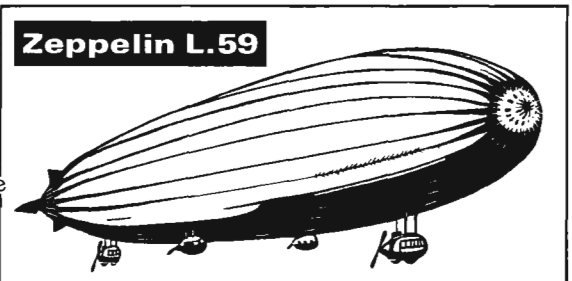
| | |
|---|---|
| 1 Rudder. | 2 Propeller. |
| 3 Gondola. | 4 Elevator. |
| 5 Stabilizing plane. | |
| 6 Engine. | 7 Fuel tank. |
| 8 Envelope. | 9 Frame. |

## GERMAN NAVAL AIRSHIP DIVISION 1914-18

| | |
|---|---|
| AIRSHIPS IN SERVICE: | 73 |
| (59 Zeppelins, 8 Schütte-Lanz, 6 other types) | |
| AIRSHIP LOSSES IN RAIDS: | 17 |
| CREW LOSSES: | 389 |
| TOTAL RAID FLIGHTS: | 342 |
| TOTAL SCOUTING FLIGHTS: | 1191 |

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# ZEPPELIN L.59 AND "THE AFRICA RAID" 21–25 NOVEMBER 1917




Length: 743 ft. 0 ins. Max. speed: 64 m.p.h.
Diameter: 78 ft. 5 ins. Height: 91 ft. 1 in.

ADRIATIC SEA
ALBANIA
SERBIA
ITALY
GREECE
IONIAN SEA
AEGEAN SEA
TURKEY
Constantinople
Departure 0830/21 Nov.
Arrival 0740/25
JAMBOLI airship base in Bulgaria
1430/24
Adalia
Mediterranean Sea
Suda Bay
Crete
Cyprus
0 200 Miles

**KEY**

Route of Zeppelin L.59 21–25 November 1917.

Position where L.59 sank on 7 April 1918 after accidental fire during flight to bomb Malta. The entire crew of 23 perished.

Thunderstorm causes radio interference.

Storms encountered; crew fatigued; some feverish and sick.

0518/22
Sollum
0330/24
Ras Bulau
Port Said
Suez Canal
TRIPOLI
LIBYAN DESERT
Heat rising from desert causes gas loss; airship becomes nose-heavy; crew suffer airsickness.
Nile
EGYPT
RED SEA

CARGO CARRIED DURING THE AFRICA FLIGHT

- 311,000 rounds rifle ammunition
- 57,500 machine-gun cartridges in belts
- 13,500 machine-gun cartridges in boxes
- 30 machine-guns
- 9 spare machine-gun barrels
- 61 sacks medical supplies

*plus*

food, mail, binoculars, spare radio parts, bush knives, etc.

*In May 1917, the Germans proposed to despatch a large Zeppelin loaded with food, medical supplies, and ammunition to the relief of von Lettow-Vorbeck's ground forces in East Africa. L.57 (under construction at Friedrichshafen) was enlarged for the task, but during trials she caught fire at Jüterbog. Determined to press ahead with the enterprise, the Germans enlarged L.59 (under construction at Staaken) and on 3 November 1917 she was flown to Jamboli in Bulgaria, which was the most southerly European airship base of the Central Powers. Despite two abortive attempts to fly to Africa (on 13 and 16 November 1917), L.59 started her long flight on 21 November 1917, but was recalled by radio on 23 November when west of Khartoum because it was thought that the defeat of von Lettow-Vorbeck was imminent. Despite adverse weather, L.59 arrived at Jamboli on 25 November.*

1230/22
Farafra Oasis
1530/22
Dakhla Oasis
1620/22
Housing of the forward engine car cracks; L.59 to base radio contact lost; motor unusable.
2145/22
Wadi Halfa
ANGLO-EGYPTIAN SUDAN
L.59 drops 1,800 feet due to cooling of air; makes height by releasing ballast.
Dongola
Nile
0300/23
Receives recall radio message.
0230/23
0045/23
Khartoum

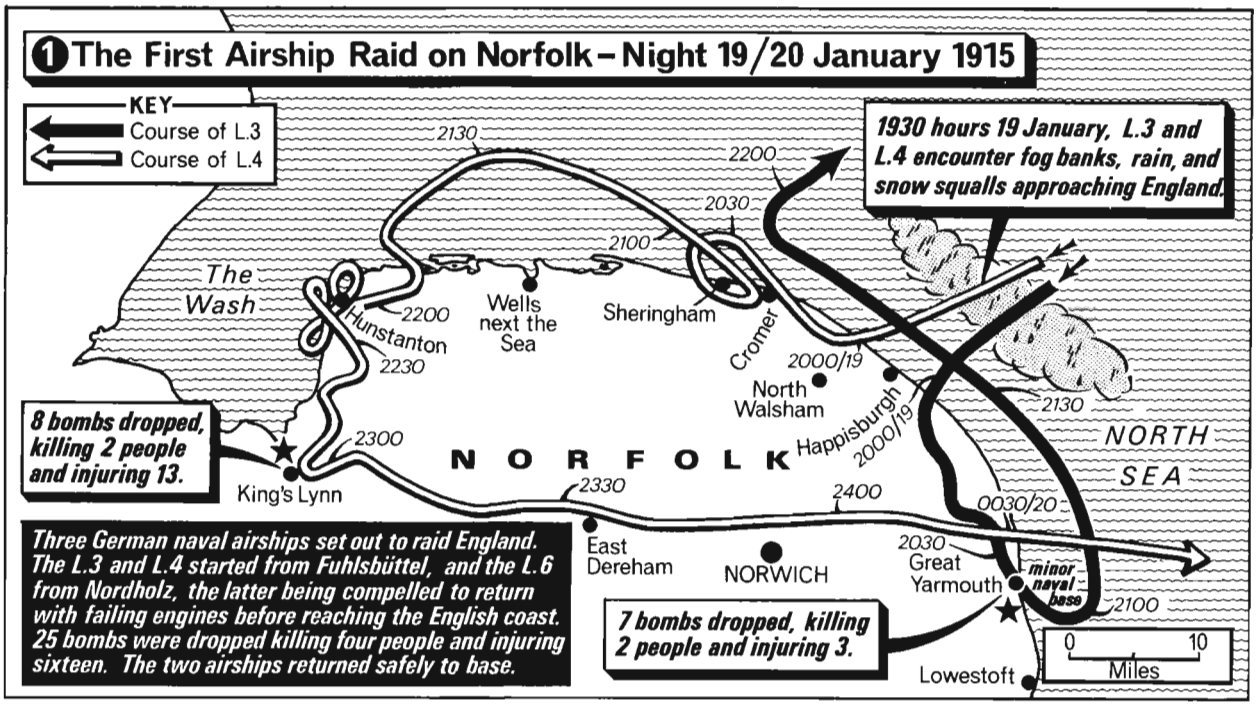
AFRICA FLIGHT DETAILS

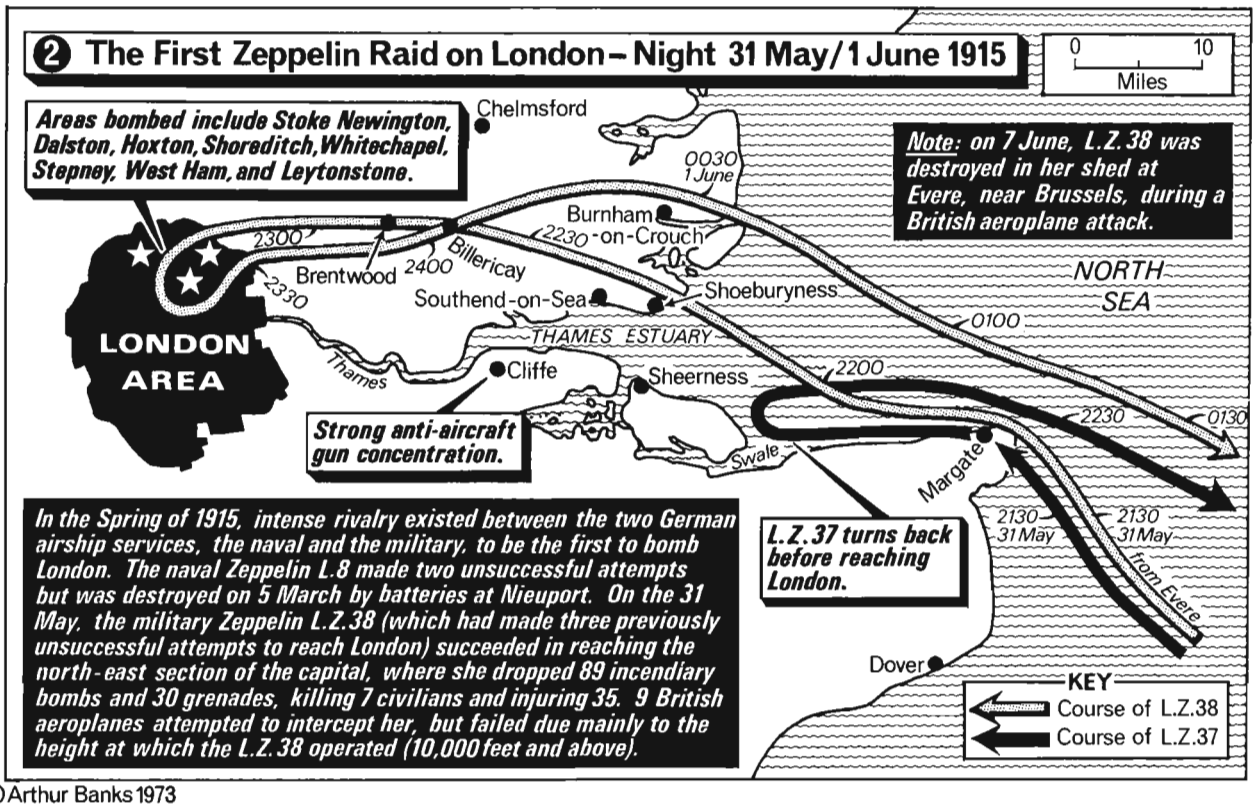
| | |
|---|---|
| Time in air: | 95 hrs. 10 mins. |
| Distance flown: | 4,200 miles |
| Maximum altitude: | 9,850 feet |
| Average speed: | 44 m.p.h. |
| Complement: | 22 men |
| Fuel carried: | 47,800 lb. |
| Fuel consumed: | 25,050 lb. |
| Oil carried: | 3,360 lb. |
| Oil consumed: | 1,107 lb. |
| Gas used: | 930,000 cu.ft. |
| Ballast carried: | 20,200 lb. |
| Cargo and bombs: | 35,800 lb. |

*In 1918, L.59 raided Naples, but was unsuccessful in attempts to to raid Port Said and Suda Bay.*

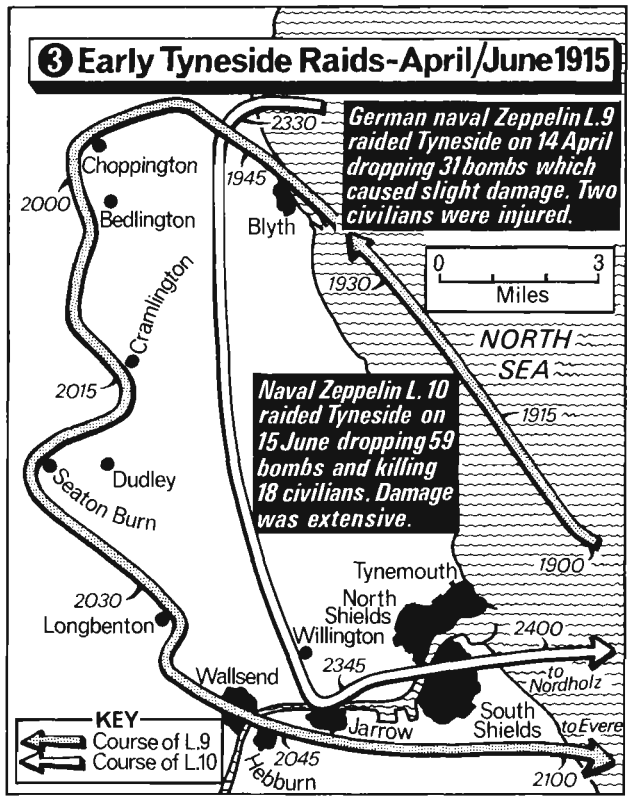
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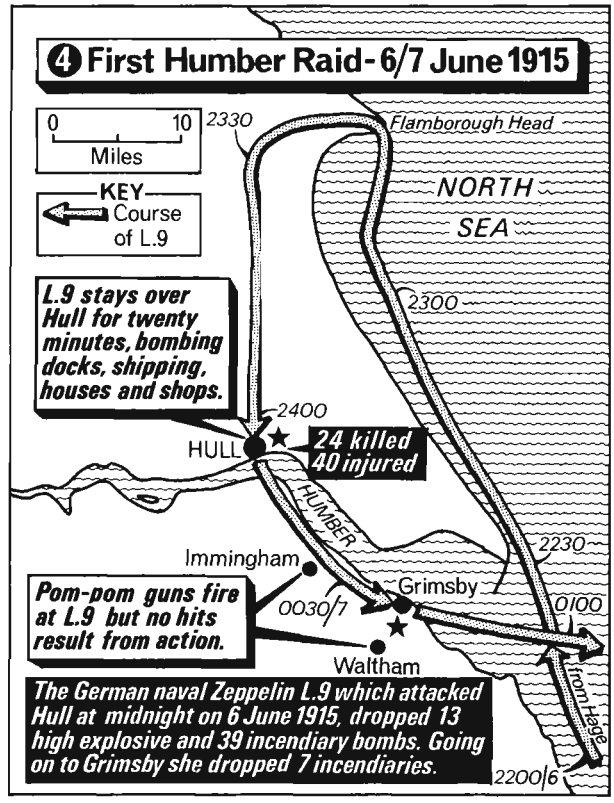
# GERMAN AIRSHIP RAIDS ON BRITAIN 1915–1918

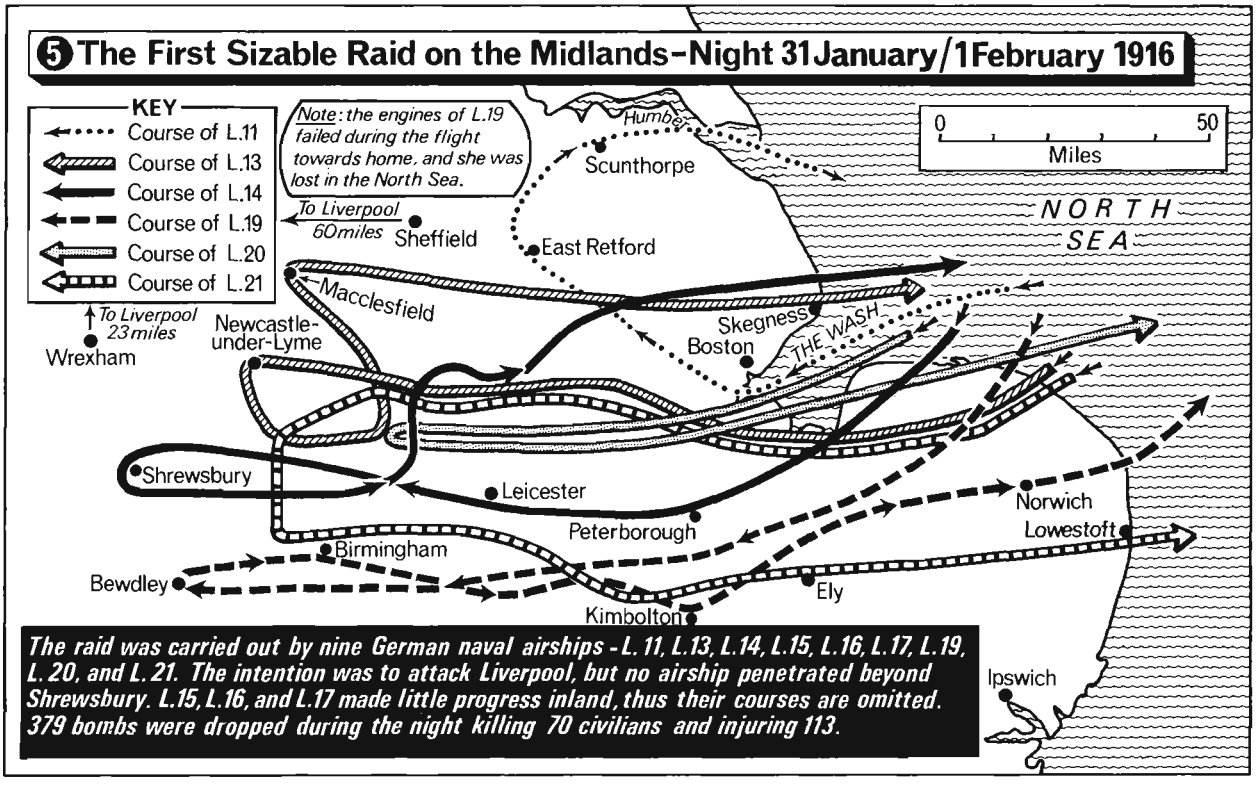



©Arthur Banks 1973


3 Early Tyneside Raids-April/June 1915
German naval Zeppelin L.9 raided Tyneside on 14 April dropping 31 bombs which caused slight damage. Two civilians were injured.
Naval Zeppelin L.10 raided Tyneside on 15 June dropping 59 bombs and killing 18 civilians. Damage was extensive.
Choppington
Bedlington
Blyth
Cramlington
Dudley
Seaton Burn
Longbenton
Wallsend
Willington
North Shields
Tynemouth
Jarrow
South Shields
Tebburn
to Nordholz
to Evere
2330
1945
2000
1930
1915
2015
1900
2030
2400
2345
2045
2100
0 3 Miles
NORTH SEA
KEY
Course of L.9
Course of L.10


4 First Humber Raid-6/7 June 1915
0 10 Miles
KEY
Course of L.9
L.9 stays over Hull for twenty minutes, bombing docks, shipping, houses and shops.
24 killed 40 injured
Pom-pom guns fire at L.9 but no hits result from action.
The German naval Zeppelin L.9 which attacked Hull at midnight on 6 June 1915, dropped 13 high explosive and 39 incendiary bombs. Going on to Grimsby she dropped 7 incendiaries.
Flamborough Head
NORTH SEA
HULL
HUMBER
Immingham
Grimsby
Waltham
from Hague
2330
2300
2400
2230
0100
0030/7
2200/6


5 The First Sizable Raid on the Midlands-Night 31 January/1 February 1916
KEY
Course of L.11
Course of L.13
Course of L.14
Course of L.19
Course of L.20
Course of L.21
Note: the engines of L.19 failed during the flight towards home, and she was lost in the North Sea.
0 50 Miles
NORTH SEA
Humber
Scunthorpe
East Retford
To Liverpool 60miles
Sheffield
Macclesfield
To Liverpool 23 miles
Wrexham
Newcastle-under-Lyme
Skegness
Boston
THE WASH
Shrewsbury
Leicester
Peterborough
Norwich
Lowestoft
Birmingham
Bewdley
Ely
Kimbolton
Ipswich
The raid was carried out by nine German naval airships - L.11, L.13, L.14, L.15, L.16, L.17, L.19, L.20, and L.21. The intention was to attack Liverpool, but no airship penetrated beyond Shrewsbury. L.15, L.16, and L.17 made little progress inland, thus their courses are omitted. 379 bombs were dropped during the night killing 70 civilians and injuring 113.

# GERMAN AIRSHIP RAIDS ON BRITAIN–continued

## ❻ The Largest Airship Raid — Night 2/3 September 1916

**KEY**

GERMAN NAVAL AIRSHIPS
- Course of L.11
- Course of L.13
- Course of L.14
- Course of L.16
- Course of L.21
- Course of L.22
- Course of L.23
- Course of L.24
- Course of L.30
- Course of L.32
- Course of S.L.8

Note: L.17 started out but turned back before reaching England.

GERMAN MILITARY AIRSHIPS
- Course of S.L.11
- Course of L.Z.?
- Course of L.Z.?

Note: a further airship started out, but turned back before reaching England.

★ ★ ★ ★ ★ Areas most heavily bombed during the raid. Following the destruction of S.L.11, most airships fled for home, unloading their cargoes indiscriminately.

Hull · Humber · Scunthorpe · East Retford · Lincoln · Nottingham · Grantham · Stamford · Leicester · Peterborough · Northampton · Bedford · Cambridge · The Wash · NORTH SEA · Norwich · Ipswich · Colchester · Chelmsford · Southend-on-Sea · Thames Estuary · Gravesend · Maidstone · Canterbury · Dover · Strait of Dover

***3 gasometers are bombed and destroyed.***

***0225 hours 3 September, the S.L. 11 is shot down over Cuffley.***

***S.L.11 is engaged by guns and held in searchlight beams.***

LONDON AREA

*On the night of 2 September 1916, sixteen German airships set out to raid England. Fourteen crossed the English coastline, the remaining two turning back. 261 high explosive and 202 incendiary bombs were dropped during the attack, resulting in civilian casualties of 4 killed and 12 injured. Damage inflicted was slight. The chief event of the night was the destruction of the wooden Schütte-Lanz S.L.11 military airship over Cuffley by a B.E. 2C machine piloted by Lieutenant W. Leefe Robinson of No. 39 Squadron R.F.C., who received the Victoria Cross for his action. The S.L. 11, plunging to earth in flames, was visible for fifty miles and millions of civilians witnessed the disaster. The morale of the civilian population, previously at a low state, was uplifted immediately, whereas the German airship service never recovered fully from the defeat.*

### Airship Schütte-Lanz S.L.11

| | | | |
|---|---|---|---|
| Commissioned: | 2 Aug. 1916 | Length: | 570 ft. 10 ins. |
| Total lift: | 46,200 lbs. | Height: | 81 ft. 0 ins. |
| Max. altitude: | 12,000 ft. | Diameter: | 65 ft. 11 ins. |
| Max. speed: | 57 m.p.h. | Crew: | 16 |
| Gas volume: | 1,369,300 cubic ft. | | |

0 10 20 Miles

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# GERMAN AIRSHIP RAIDS ON BRITAIN – continued

## 7 The 'Silent Raid'-Night 19/20 October 1917

**1** *Eleven naval Zeppelins from four German bases cross North Sea to raid England. Weather good.*

**2** *At height of four miles, fleet is caught in 60 m.p.h. gale which blows it off-course across south-eastern England.*

**3** *London shrouded in ground mist. Defences remain silent as raiders pass over capital.*

**4** *L.44, hit by French gunfire at 19,000 feet, crashes to earth in flames. The crew perish.*

**5** *L.49 is attacked by five French fighter aircraft and forced to land in the valley of Apance. The French prevent crew from destroying L.49. Thus, the Allies capture a fully operational model of the latest type of German airship.*

**6** *L.45, out of fuel, attempts to land but is caught in gale and dashed against ground. Crew surrender after firing Zeppelin.*

**7** *Believing herself over friendly territory, L.50 descends and sixteen men disembark. Rising again, she drifts southwards blown by winds.*

**8** *L.50, buffeted by gales and pursued until dusk by seaplanes from St. Raphael, drifts out over the Mediterranean and disappears.*

*Eleven German naval airships set out to raid the industrial centre of England in the evening of 19 October 1917. 273 bombs were dropped, killing 36 civilians and injuring 55. Four airships were lost during the raid, and a fifth, L.55, was wrecked on landing in Germany. On the outward trip, weather conditions were calm over the North Sea, but on rising to 4 miles to outrange the improved British defences, the fleet encountered a 60 m.p.h. gale which blew it off course across south-eastern England and the Continent. Although a few random bombs fell on London, the capital's guns and searchlights were prohibited from opening up as the airships drifted overhead, for fear of conveying their true positions to the German crews. Thus, the operation became known as the "Silent Raid".*

KEY

- Course of L.41
- Course of L.44
- Course of L.45
- Course of L.46
- Course of L.47
- Course of L.49
- Course of L.50
- Course of L.52
- Course of L.53
- Course of L.54
- Course of L.55
- X Wrecked airships
- North German naval airship bases concerned in the raid.
- The "Central Powers".
- Neutral states.
- German-occupied territory in October 1917.

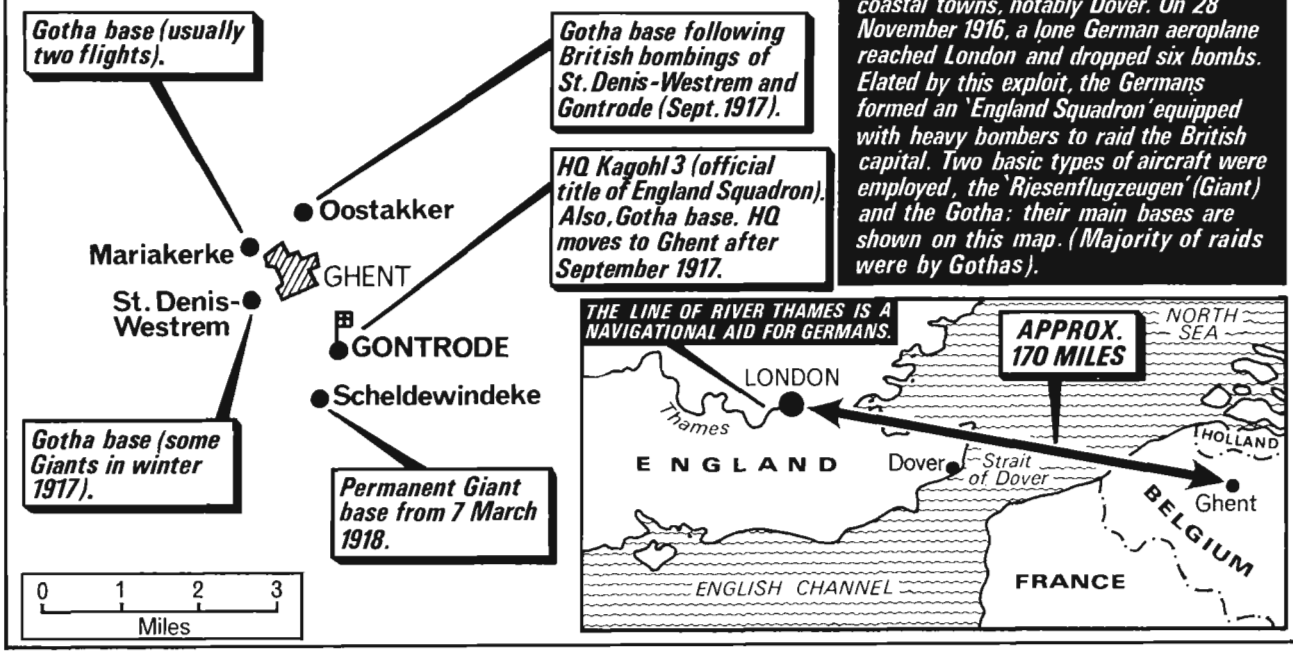
0 50 Miles

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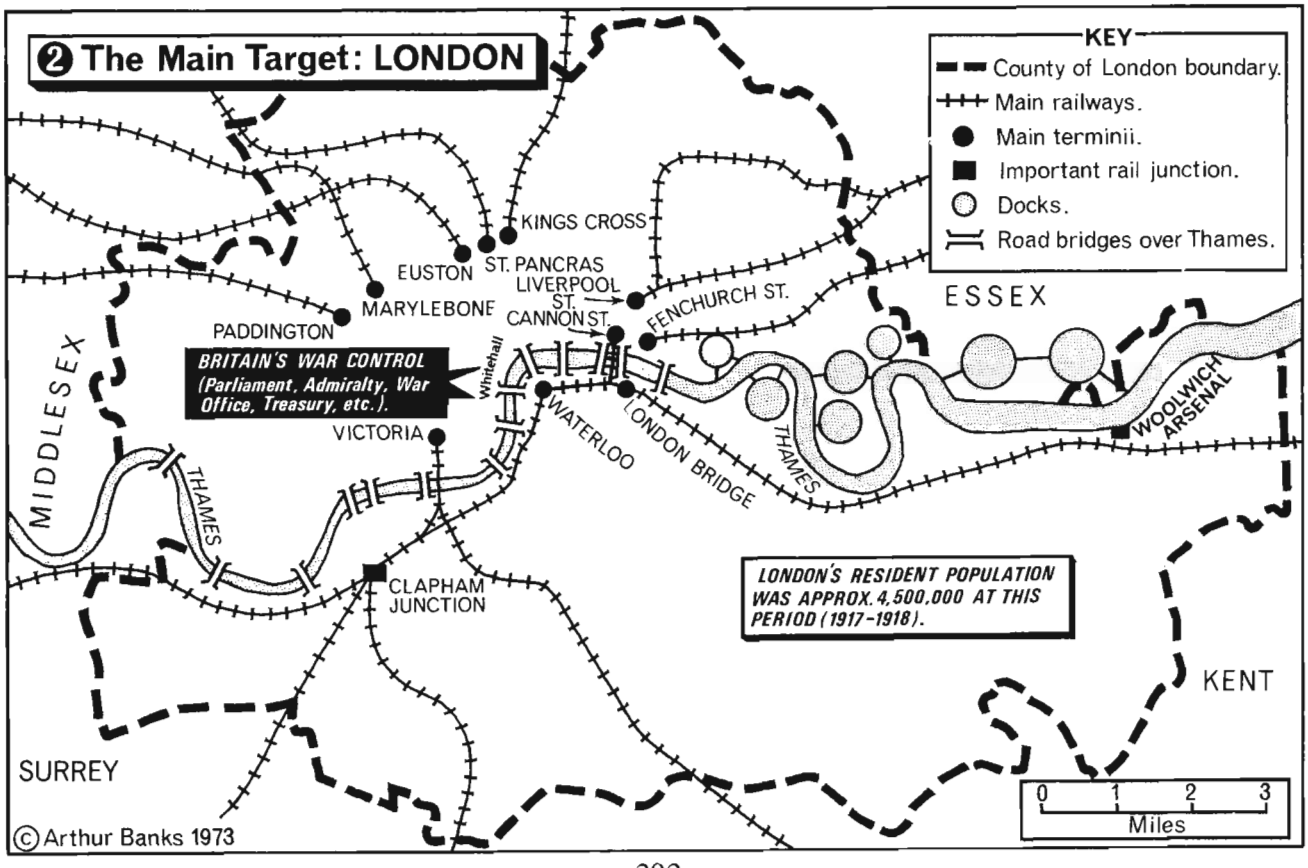
# GERMAN BOMBER RAIDS ON ENGLAND 1917–1918

## ❶ The German Bases near Ghent in Belgium

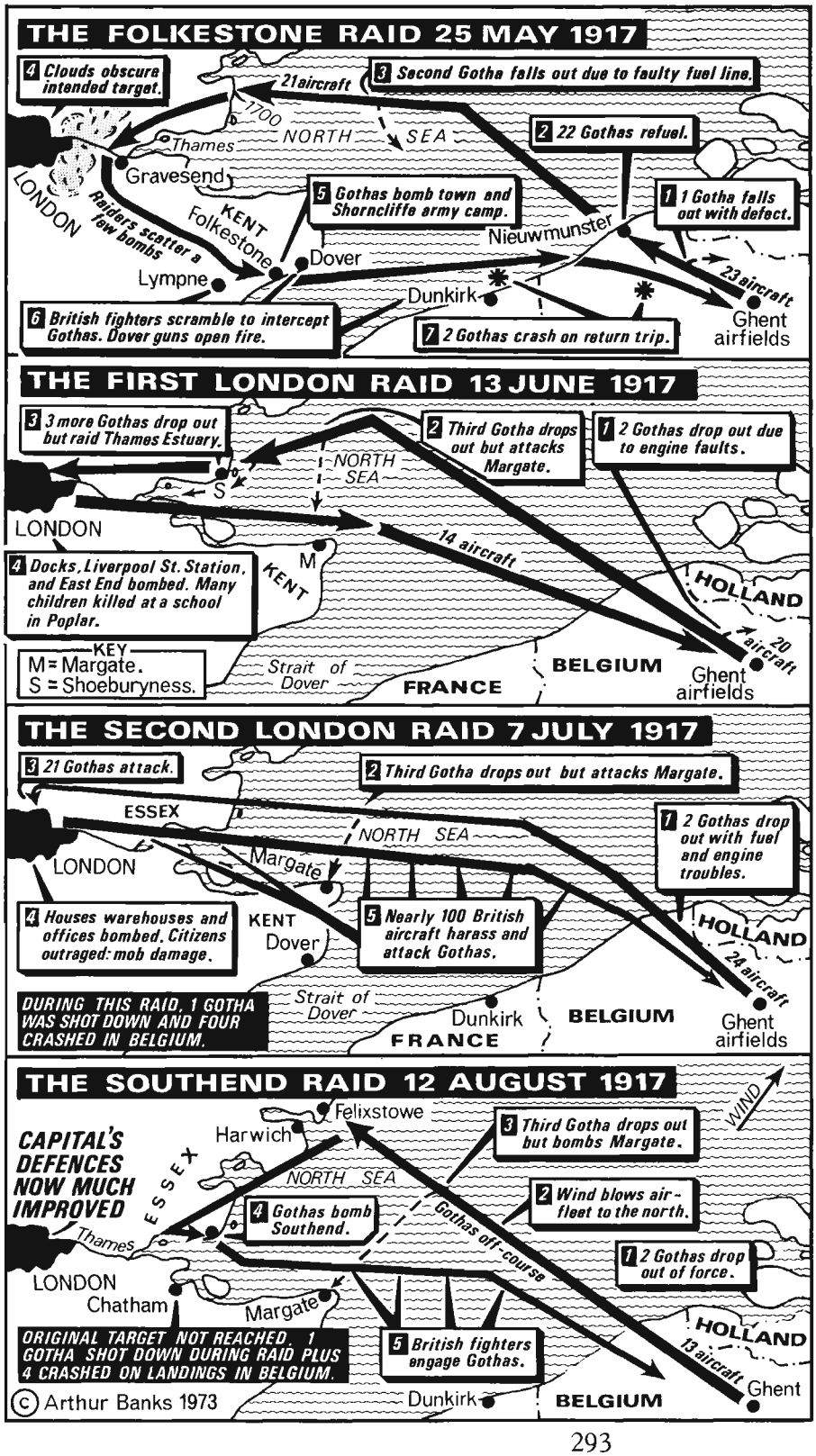
*From 24 December 1914 onwards, German single-engined aircraft raided English coastal towns, notably Dover. On 28 November 1916, a lone German aeroplane reached London and dropped six bombs. Elated by this exploit, the Germans formed an 'England Squadron' equipped with heavy bombers to raid the British capital. Two basic types of aircraft were employed, the 'Rjesenflugzeugen' (Giant) and the Gotha: their main bases are shown on this map. (Majority of raids were by Gothas).*




## ❷ The Main Target: LONDON



*Employing Gotha bombers, the Germans made eight mass-attacks in daylight against England in 1917. 165 aircraft flights were involved and nearly 73,000 lbs. of bombs were dropped, killing or injuring 1,364 English civilians. Seventeen Gothas were destroyed during the period 25 May - 22 August 1917. Four of the attacks are shown below.*




## THE EIGHT DAYLIGHT RAIDS

### 1 25 MAY 1917

| | |
|---|---|
| Aircraft employed: | 23. |
| Aircraft lost: | 2. |
| Damage caused: | £19,500. |
| Civilians killed: | 95. |

### 2 5 JUNE 1917

| | |
|---|---|
| Aircraft employed: | 22. |
| Aircraft lost: | 1. |
| Damage caused: | £5,000. |
| Civilians killed: | 13. |

### 3 13 JUNE 1917

| | |
|---|---|
| Aircraft employed: | 20. |
| Aircraft lost: | Nil. |
| Damage caused: | £129,500. |
| Civilians killed: | 162. |

### 4 4 JULY 1917

| | |
|---|---|
| Aircraft employed: | 25. |
| Aircraft lost: | Nil. |
| Damage caused: | £2,100. |
| Civilians killed: | 17. |

### 5 7 JULY 1917

| | |
|---|---|
| Aircraft employed: | 24. |
| Aircraft lost: | 5. |
| Damage caused: | £205,500. |
| Civilians killed: | 57. |

### 6 22 JULY 1917

| | |
|---|---|
| Aircraft employed: | 23. |
| Aircraft lost: | 1. |
| Damage caused: | £2,800. |
| Civilians killed: | 13. |

### 7 12 AUGUST 1917

| | |
|---|---|
| Aircraft employed: | 13. |
| Aircraft lost: | 5. |
| Damage caused: | £9,600. |
| Civilians killed: | 32. |

### 8 22 AUGUST 1917

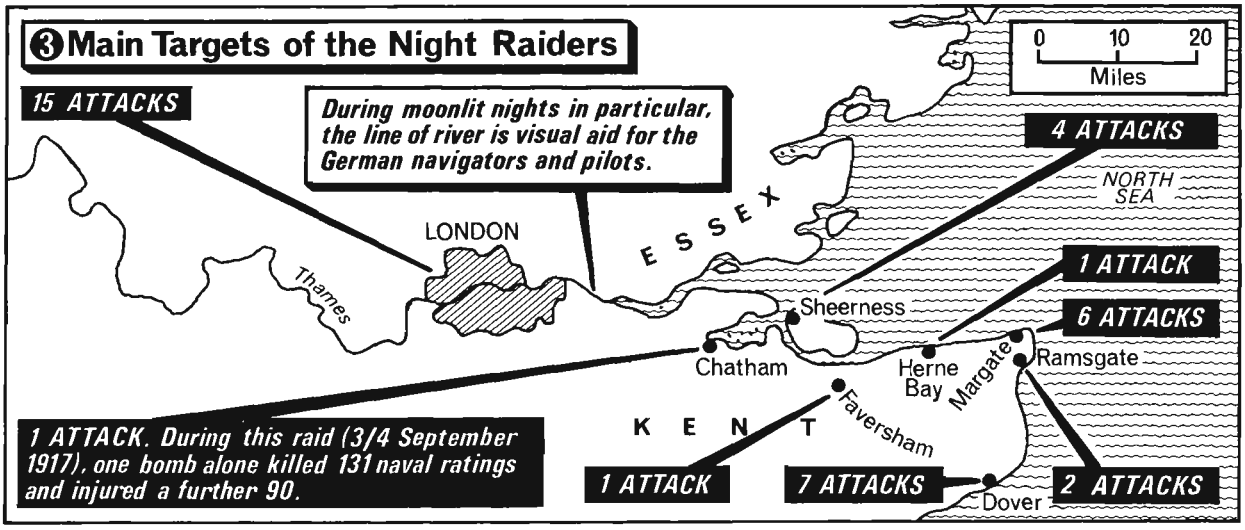
| | |
|---|---|
| Aircraft employed: | 15. |
| Aircraft lost: | 3. |
| Damage caused: | £17,200. |
| Civilians killed: | 12. |

# GERMAN BOMBER RAIDS ON ENGLAND* - continued

*TOTAL MASS RAIDS (1917-1918) = 27.

*Because of the increasing efficiency of Britain's defences, the Germans switched from daylight to darkness for their attacks. 19 raids were carried out between 3 September 1917 and 20 May 1918 and often several towns were bombed during a single raid. At one period, 300,000 Londoners sought refuge at Underground stations.*

## ③ Main Targets of the Night Raiders




## THE 19 DARKNESS RAIDS

| | | |
|---|---|---|
| 1 | 3-4 September. | 1917 |
| 2 | 4-5 September. | |
| 3 | 24 September. | |
| 4 | 25 September. | |
| × 5 | 28 September. | |
| 6 | 29 September. | |
| 7 | 30 September. | |
| 8 | 1-2 October. | |
| 9 | 29 October. | |
| * 10 | 31 October-1 November. | |
| 11 | 6 December. | |
| 12 | 18 December. | |
| 13 | 22 December. | |
| 14 | 28-29 January. | 1918 |
| 15 | 29-30 January. | |
| 16 | 16 February. | |
| 17 | 17 February. | |
| 18 | 7-8 March. | |
| 19 | 19-20 May. | |

× indicates first 'Giant' raid.

* indicates first incendiary bomb raid.

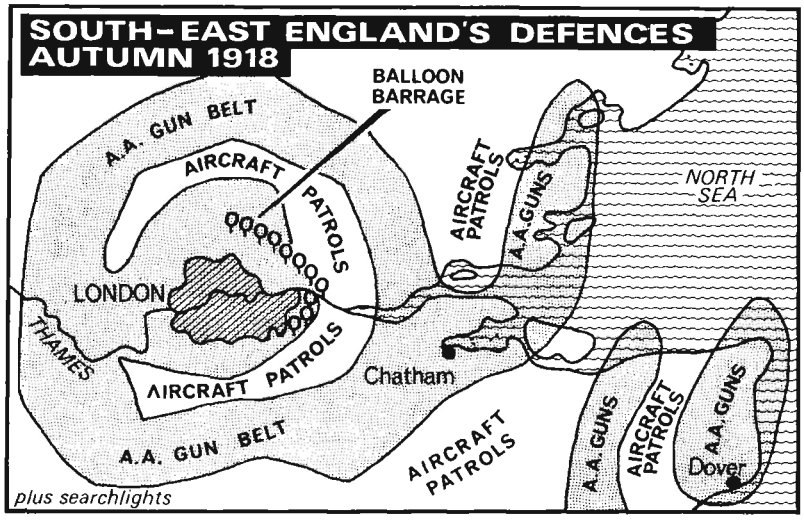
## THE GERMAN 'ELEKTRON' BOMB (AUGUST 1918)

***Weighing approx. one kilogram, this incendiary device ignited upon contact. Constructed of magnesium, its main feature was that when sprayed with water, the existing fire became even fiercer. The Germans planned to drop large numbers on London (and Paris), but the Allied offensives in the autumn of 1918 frustrated this idea.***

## GERMAN BOMBER LOSSES

43 Gothas (from 383 flights) } ALL ATTACKS, { shot down, crashed,
2 Giants (from 30 flights) } NIGHT AND DAY { missing, etc.

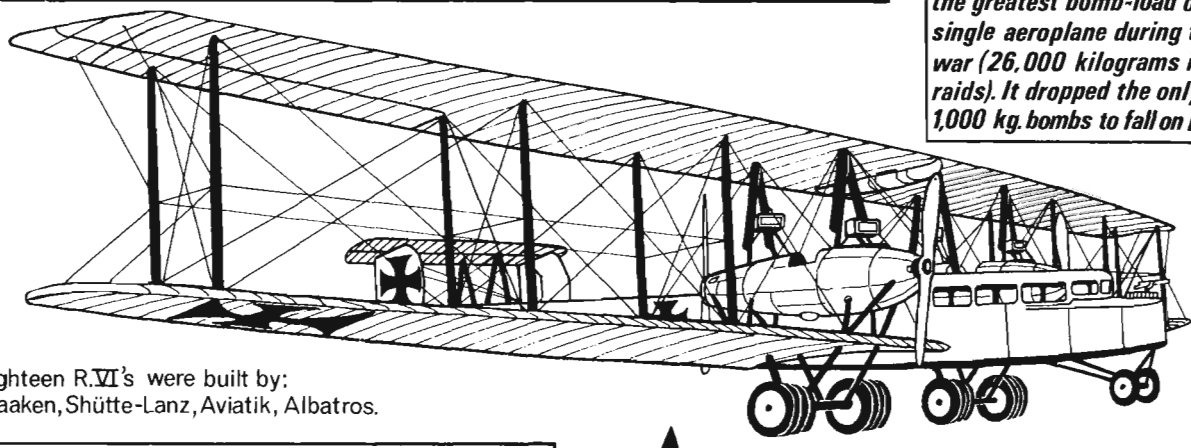
## SOUTH-EAST ENGLAND'S DEFENCES AUTUMN 1918




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## GERMAN Zeppelin-Staaken R.VI (Giant) Bomber

*One R.VI, the R.39, delivered the greatest bomb-load of any single aeroplane during the war (26,000 kilograms in 20 raids). It dropped the only 3 1,000 kg. bombs to fall on Britain.*



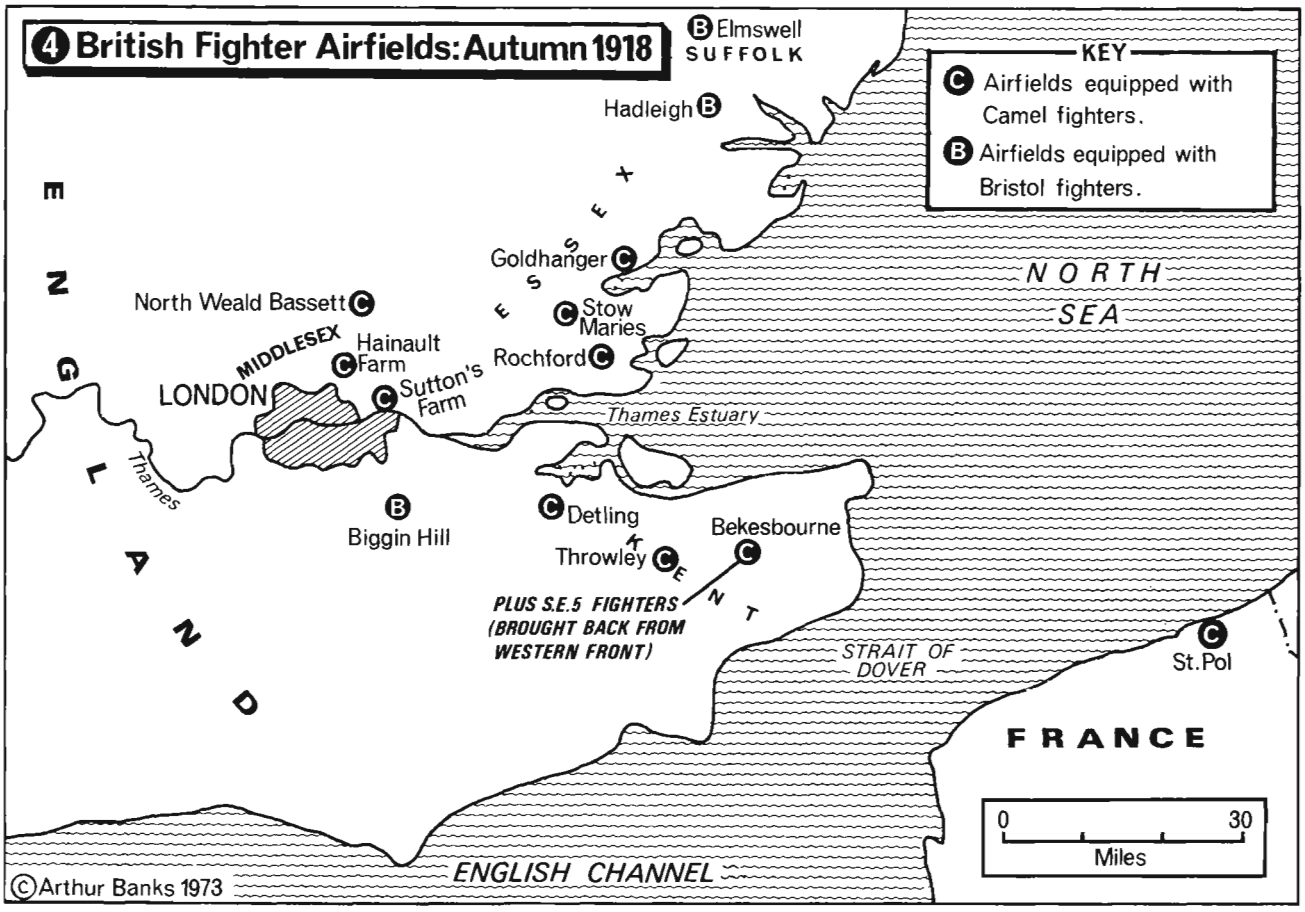
Eighteen R.VI's were built by:
Staaken, Shütte-Lanz, Aviatik, Albatros.

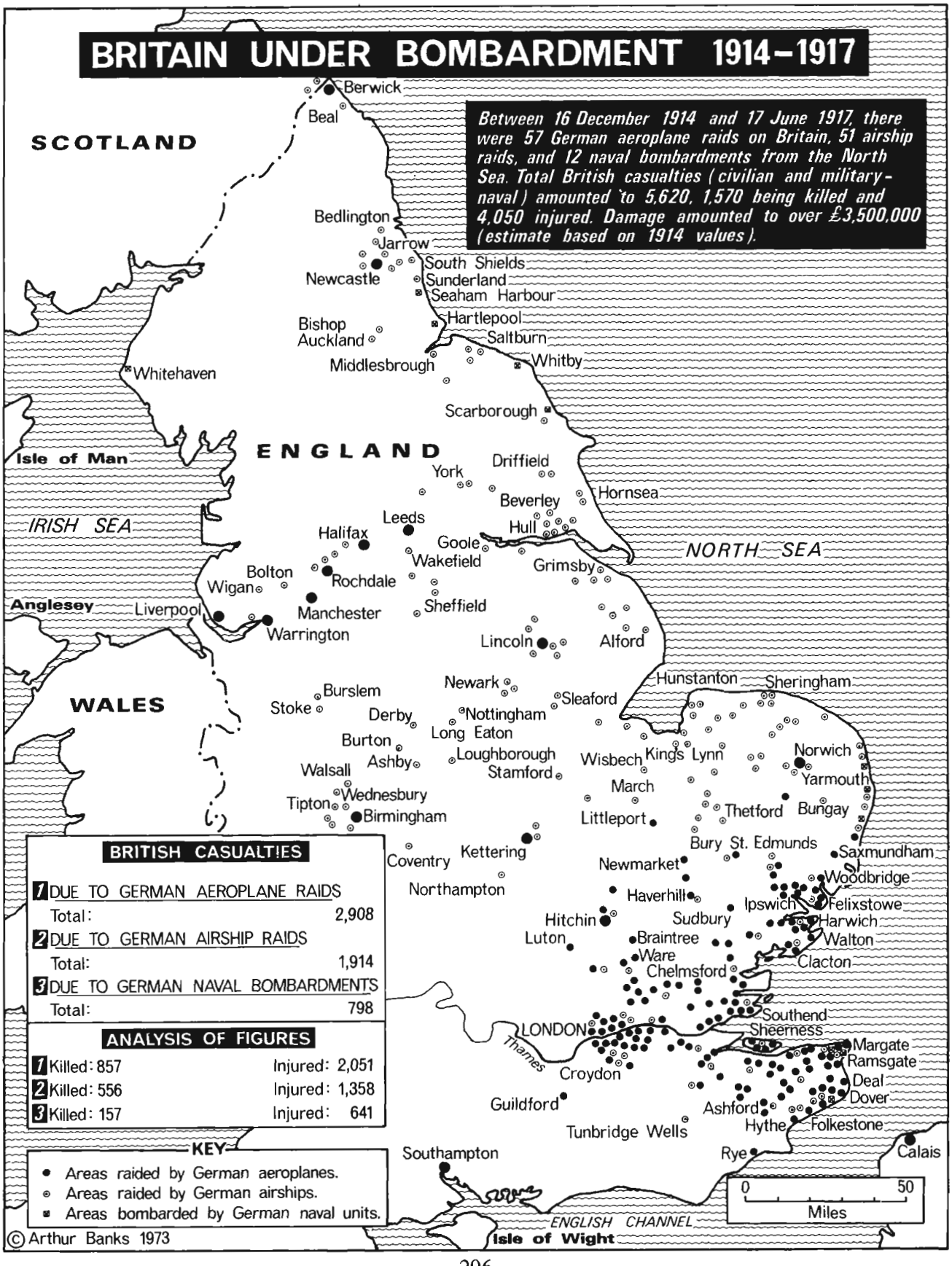
### SPECIAL FEATURES

1. *All engines accessible during flight.*
2. *Extra engine for powering wireless transmitter.*
3. *Inter-communication.*
4. *Dual control.*
5. *Separate bomb-aimer's position.*
6. *British Lewis guns used in armament.*

| VERSION: 4 Maybach engines | | VERSION: 4 Mercedes engines | |
|---|---|---|---|
| Length: | 72 feet, 6 inches. | Length: | 72 feet, 6 inches. |
| Span: | 138 feet, 6 inches. | Span: | 138 feet, 6 inches. |
| Speed: | 84 m.p.h. | Speed: | 80·8 m.p.h. |
| Ceiling: | 14,200 feet. | Ceiling: | 12,500 feet. |
| Endurance: | 8-10 hours. | Endurance: | 7-8 hours. |

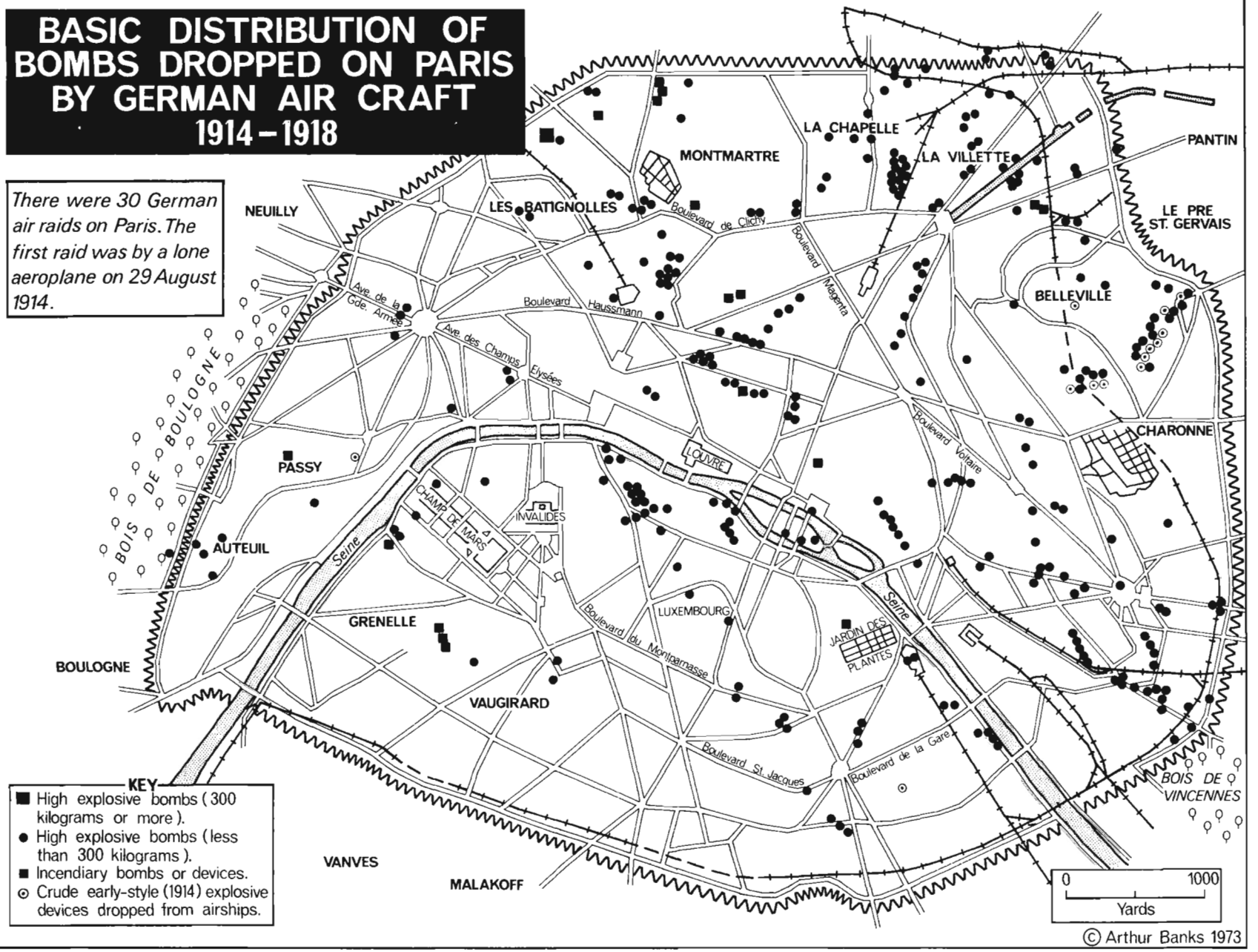
## 4 British Fighter Airfields: Autumn 1918



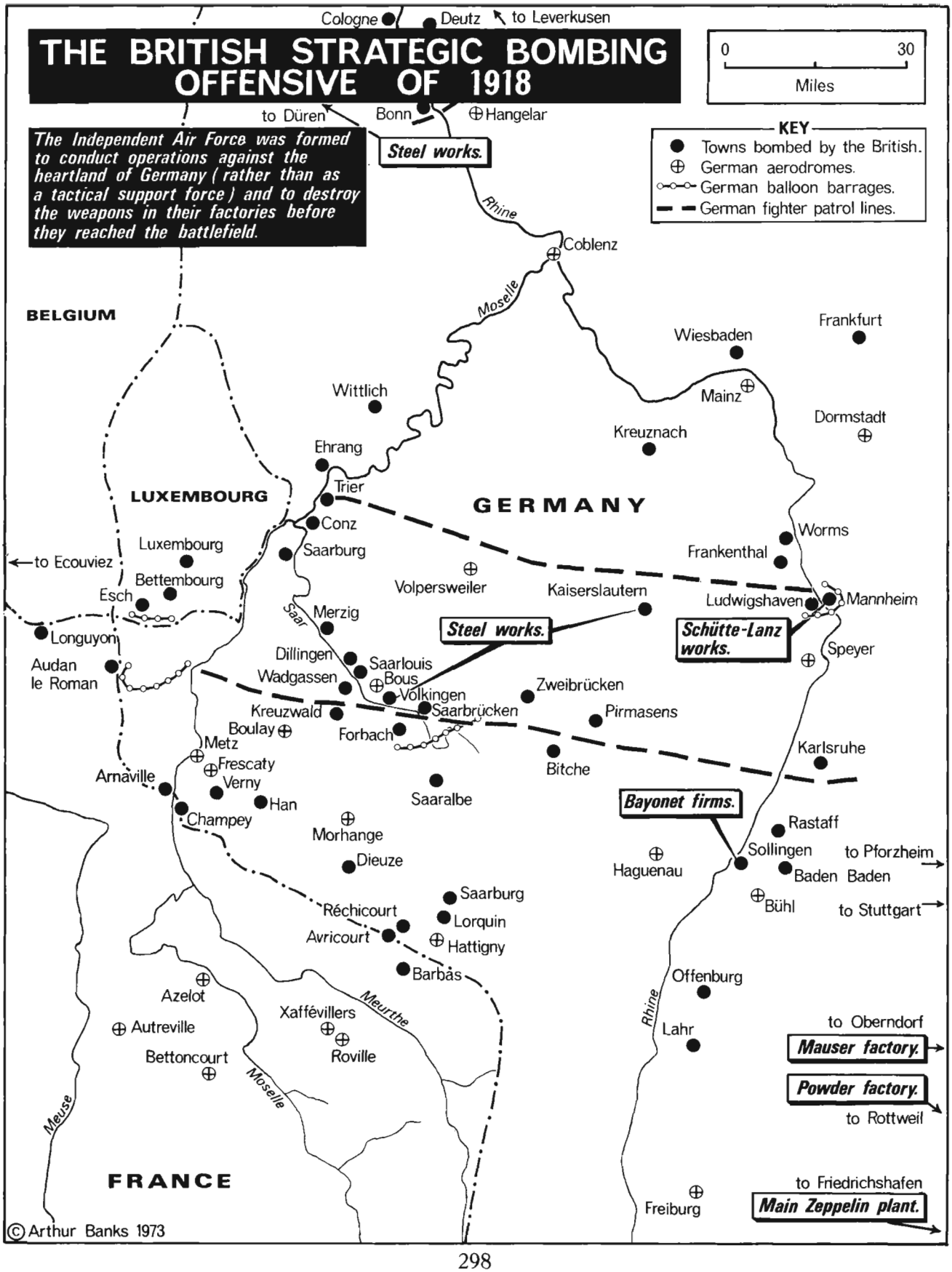

BRITAIN UNDER BOMBARDMENT 1914–1917
Between 16 December 1914 and 17 June 1917, there were 57 German aeroplane raids on Britain, 51 airship raids, and 12 naval bombardments from the North Sea. Total British casualties (civilian and military-naval) amounted to 5,620, 1,570 being killed and 4,050 injured. Damage amounted to over £3,500,000 (estimate based on 1914 values).
SCOTLAND
ENGLAND
WALES
IRISH SEA
NORTH SEA
ENGLISH CHANNEL
Isle of Man
Anglesey
Isle of Wight
Berwick
Beal
Bedlington
Jarrow
Newcastle
South Shields
Sunderland
Seaham Harbour
Hartlepool
Bishop Auckland
Saltburn
Whitby
Middlesbrough
Whitehaven
Scarborough
Driffield
York
Beverley
Hornsea
Hull
Leeds
Halifax
Goole
Wakefield
Grimsby
Bolton
Wigan
Rochdale
Liverpool
Manchester
Warrington
Sheffield
Lincoln
Alford
Hunstanton
Sheringham
Newark
Sleaford
Burslem
Stoke
Derby
Nottingham
Long Eaton
Burton
Ashby
Loughborough
Stamford
Wisbech
Kings Lynn
Norwich
Yarmouth
Walsall
Wednesbury
Tipton
Birmingham
March
Littleport
Thetford
Bungay
Bury St. Edmunds
Saxmundham
Coventry
Kettering
Northampton
Newmarket
Woodbridge
Haverhill
Ipswich
Felixstowe
Harwich
Hitchin
Luton
Sudbury
Braintree
Walton
Ware
Clacton
Chelmsford
Southend
Sheerness
LONDON
Thames
Margate
Ramsgate
Deal
Dover
Croydon
Guildford
Ashford
Hythe
Folkestone
Tunbridge Wells
Rye
Calais
Southampton
BRITISH CASUALTIES
1 DUE TO GERMAN AEROPLANE RAIDS
Total: 2,908
2 DUE TO GERMAN AIRSHIP RAIDS
Total: 1,914
3 DUE TO GERMAN NAVAL BOMBARDMENTS
Total: 798
ANALYSIS OF FIGURES
1 Killed: 857 Injured: 2,051
2 Killed: 556 Injured: 1,358
3 Killed: 157 Injured: 641
KEY
Areas raided by German aeroplanes.
Areas raided by German airships.
Areas bombarded by German naval units.
0 50
Miles
© Arthur Banks 1973

# BASIC DISTRIBUTION OF BOMBS DROPPED ON PARIS BY GERMAN AIR CRAFT 1914 – 1918

*There were 30 German air raids on Paris. The first raid was by a lone aeroplane on 29 August 1914.*

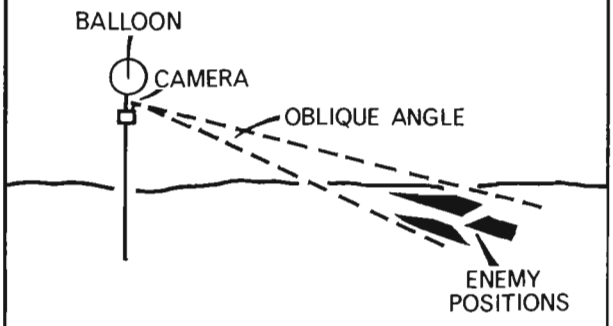



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THE BRITISH STRATEGIC BOMBING OFFENSIVE OF 1918
The Independent Air Force was formed to conduct operations against the heartland of Germany ( rather than as a tactical support force ) and to destroy the weapons in their factories before they reached the battlefield.
0
30
Miles
KEY
Towns bombed by the British.
German aerodromes.
German balloon barrages.
German fighter patrol lines.
Cologne
Deutz
to Leverkusen
to Düren
Bonn
Hangelar
Steel works.
Rhine
Coblenz
Moselle
BELGIUM
LUXEMBOURG
GERMANY
Wittlich
Ehrang
Trier
Conz
Saarburg
Luxembourg
to Ecouviez
Bettembourg
Esch
Longuyon
Audan le Roman
Merzig
Saar
Dillingen
Saarlouis
Wadgassen
Bous
Völklingen
Saarbrücken
Kreuzwald
Boulay
Forbach
Metz
Frescaty
Verny
Arnaville
Champey
Han
Morhange
Dieuze
Saaralbe
Bitche
Volpersweiler
Kaiserslautern
Steel works.
Zweibrücken
Pirmasens
Wiesbaden
Frankfurt
Mainz
Dormstadt
Kreuznach
Frankenthal
Worms
Ludwigshaven
Mannheim
Schütte-Lanz works.
Speyer
Karlsruhe
Bayonet firms.
Rastaff
Sollingen
to Pforzheim
Haguenau
Baden Baden
Bühl
to Stuttgart
Offenburg
Rhine
Lahr
to Oberndorf
Mauser factory.
Powder factory.
to Rottweil
to Friedrichshafen
Main Zeppelin plant.
Freiburg
Saarburg
Réchicourt
Lorquin
Avricourt
Hattigny
Barbâs
Azelot
Autreville
Bettoncourt
Xaffévillers
Roville
Meurthe
Moselle
Meuse
FRANCE
© Arthur Banks 1973

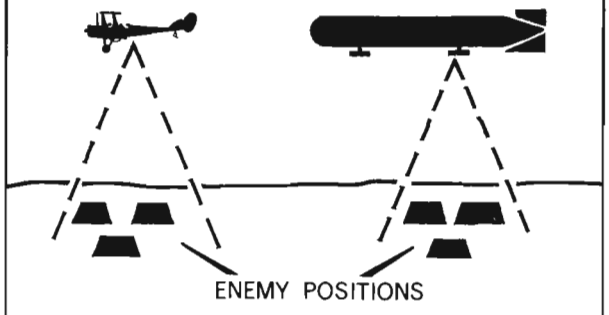
# DEVELOPMENTS IN AERIAL SURVEYING 1914-1918

## ❶ Balloon Photography



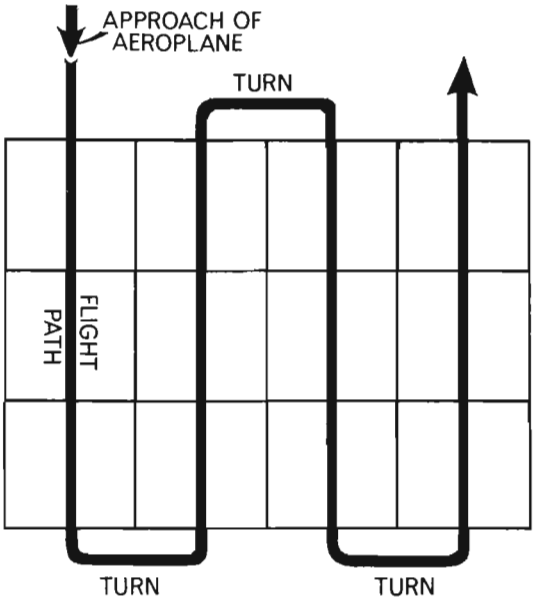

*From the cartographic viewpoint, this method was unsatisfactory due to distortion of scale. What was required was overhead 'plan view' photography.*

## ❷ Overhead Photography



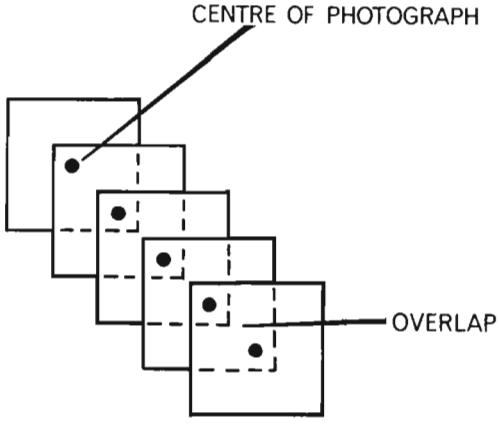

*By utilising aeroplanes and airships, overhead views could be obtained. Battle maps improved both in scale accuracy and in detail shown.*

## ❸ The Mosaic Map




*To cover large areas, photographs were butt-jointed together to form one vast panoramic spread.*

## ❹ The Overlap Refinement




*The mosaic map left much to be desired as only the centres of photographs were true to scale, and these varied individually. By regulating camera shutters at fixed intervals while aircraft maintained a consistent height, resulting prints could be overlapped to register uniformly.*

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# THE FIGHTER 'ACES'

*Note: main decorations only shown.*

## THE INTERNATIONAL TOP TEN SCORERS

| POSITION | NAME | COUNTRY | 'KILLS' |
|---|---|---|---|
| 1 | RICHTHOFEN | GERMANY | 80 |
| 2 | FONCK | FRANCE | 75 ? |
| 3 | MANNOCK | BRITAIN | 73 ? |
| 4 | BISHOP | CANADA | 72 |
| 5 | UDET | GERMANY | 62 |
| 6 | COLLISHAW | CANADA | 60 |
| 7 | McCUDDEN | BRITAIN | 57 |
| 8 | BEAUCHAMP-PROCTOR | SOUTH AFRICA | 54 |
| 8 | MacLAREN | CANADA | 54 |
| 8 | GUYNEMER | FRANCE | 54 |

## GERMAN TOP SCORERS

| | | | |
|---|---|---|---|
| 1 | Rittmeister Manfred von Richthofen | All six aces won *Pour le Mérite* (in Germany an 'ace' implied 10 or more victories). | 80 kills |
| 2 | Oberleutnant Ernst Udet | | 62 kills |
| 3 | Oberleutnant Erich Loewenhardt | | 53 kills |
| 4 | Leutnant Werner Voss | | 48 kills |
| 5 | Hauptmann Rudolph Berthold | | 44 kills |
| 6 | Leutnant Paul Bäumer | | 43 kills |

## FRENCH TOP SCORERS

| | | |
|---|---|---|
| 1 | Capitaine Rene Paul Fonck, L d'H, C de G with 28 Palms, MC, CK | 75 kills |
| 2 | Capitaine Georges M.L.J. Guynemer, L d'H, MM, C de G (26 Palms) | 54 kills |
| 3 | Lieutenant Charles E J M Nungesser, L d'H, MM, C de G | 45 kills |
| 4 | Capitaine Georges Felix Madon, L d'H, MM, C de G | 41 kills |
| 5 | Lieutenant Maurice Bayau, L d'H, MM, C de G | 35 kills |
| 6 | Lieutenant Michel Coifford, L d'H, MM, C de G | 34 kills |

## BRITISH EMPIRE TOP SCORERS

| | | |
|---|---|---|
| 1 | Major Edward Mannock, VC, DSO and 2 bars, MC and bar | 73 kills |
| 2 | Lt. Colonel William A. Bishop, VC, DSO and bar, MC, DFC, L d H | 72 kills |
| 3 | Lt. Colonel Raymond Collishaw, DSO and bar, DSC, DFC, C de G | 60 kills |
| 4 | Major James T.B. McCudden, VC, DSO and bar, MC and bar, MM | 57 kills |
| 5 | Captain Anthony W. Beauchamp-Proctor, VC, DSO, MC and bar | 54 kills |
| 6 | Major Donald R. MacLaren, DSO, MC and bar, DFC, L d'H, C de G | 54 kills |

## RUSSIAN TOP SCORERS

| | | |
|---|---|---|
| 1 | Staff Captain Alexander A. Kazakov, (13 Russian), DSO, MC, DFC | 17 kills |
| 2 | Captain d'Argueeff (Argeyev ?), Order of St. George | 15 kills |
| 3 | Lt. Commander Alexander Prokofieff de Seversky, (all high Russian) | 13 kills |

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## THE RED BARON

*Manfred von Richthofen was the highest scoring German fighter pilot 'ace' of the 1914-1918 war. He was credited with 80 enemy aircraft destroyed, and although the majority of these were reconnaissance machines, this total made him the top individual scorer of any country involved in the war.*

*He began flying as an active fighter pilot in March 1916, and was associated with the red Fokker triplane, the machine gun of which was synchronised to fire through the propeller.*

*He formed the group of squadrons known by the British as Richthofen's "circus", and was awarded the Pour le Mérite (the Blue Max) in February 1917.*

*He was finally shot down on 21 April 1918, and was buried by the British with full military honours at Bertangles in France.*

*After the war he was reburied with much pomp and ceremony in Berlin.*

## AUSTRO-HUNGARIAN TOP SCORER

| | |
|---|---|
| Hauptmann Godwin Brumowski | 40 kills |

## BELGIAN TOP SCORER

| | |
|---|---|
| Second Lieutenant Willy Coppens de Houthulst, DSO | 37 kills |

## ITALIAN TOP SCORER

| | |
|---|---|
| Maggiore Francesco Baracca | 34 kills |

## UNITED STATES' TOP SCORER

| | |
|---|---|
| Captain Edward V. Rickenbacker, CMH | 26 kills |

DECORATIONS: abbreviations employed here

VC = Victoria Cross. MC = Military Cross.
DSO = Distinguished Service Order. MM = Military Medal.
DSC = Distinguished Service Cross. L d'H = Légion d'Honneur.
DFC = Distinguished Flying Cross. C de G = Croix de Guerre.
CK = Cross of Karageorgevitch.
CMH = Congressional Medal of Honor.

EUROPEAN RANKINGS: Approx. equivalents

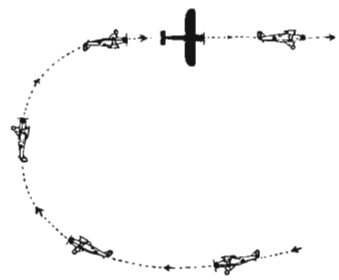
*note: army ranks*

| | | |
|---|---|---|
| Rittmeister | = | Cavalry captain. |
| Hauptmann | = | Captain. |
| Oberleutnant | = | Lieutenant. |
| Leutnant | = | Second Lieutenant. |
| Maggiore | = | Major. |
| Capitaine | = | Captain. |

## THE LOOP



## HALF ROLL ON TOP OF LOOP



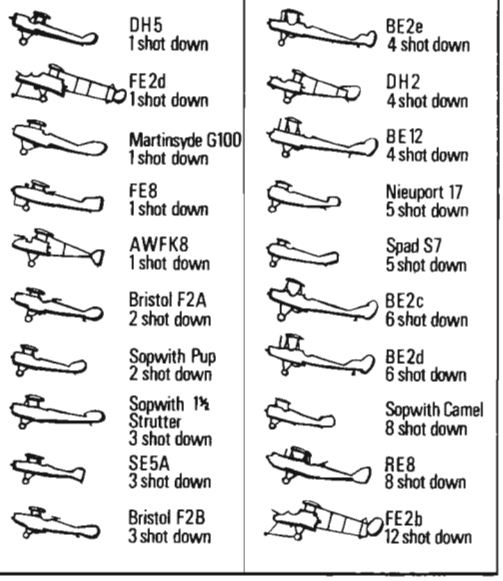
## SLOW ROLL



## THE TOP SCORER: AN ANALYSIS

### *MANFRED VON RICHTHOFEN: THE RED BARON*

### HIS TALLY



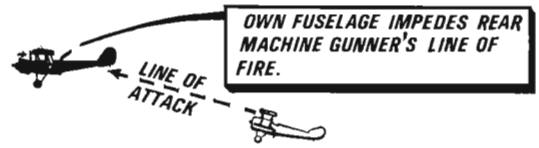

| SOME OTHER FAMOUS 'ACES' | KILLS |
|---|---|
| ***AUSTRALIAN*** *Captain Robert A. Little, DSO and bar, DSC, C de G* | 47 |
| ***BRITISH*** *Captain Albert Ball, VC, DSO and 2 bars, MC* | 44 |
| ***GERMAN*** *Hauptmann Oswald Boelcke, Pour le Mérite* | 40 |
| ***GERMAN*** *Oberleutnant Max Immelmann, Pour le Mérite* | 15 |

## ATTACK FROM ASTERN ①




*This position was advantageous to the rear aircraft when the front machine carried only one occupant.*

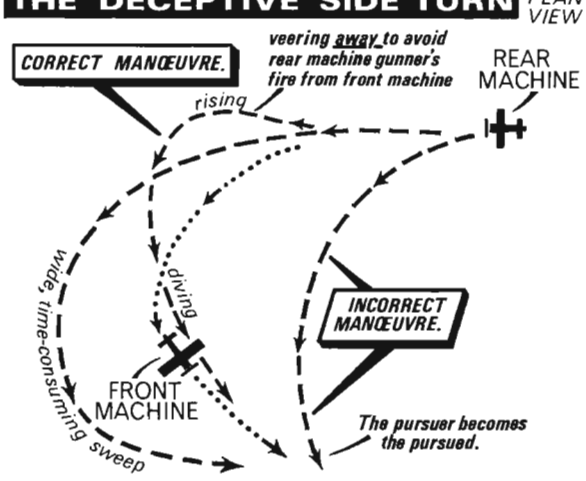
## ATTACK FROM ASTERN ②




*This position was advantageous to the rear aircraft when the front machine carried two occupants.*

## THE DECEPTIVE SIDE TURN

PLAN VIEW



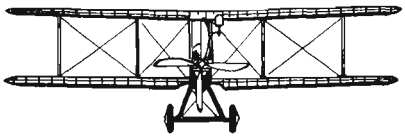

*This diagram illustrates problems confronting a pilot when his quarry turned or banked to escape attack.*

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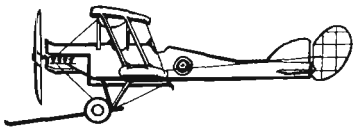
# TWELVE IMPORTANT AIRCRAFT 1914-1918

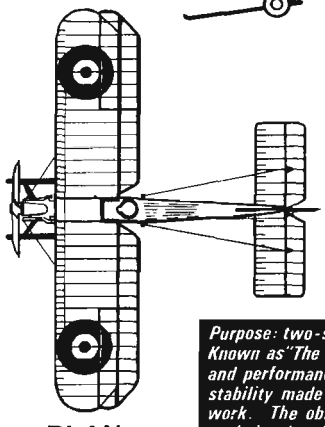
## BRITISH B.E. 2C

FRONT ELEVATION



SIDE ELEVATION





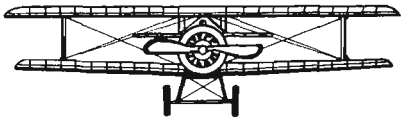
PLAN VIEW

| | |
|---|---|
| Span: | 37ft.0ins. |
| Length: | 27ft.3ins. |
| Height: | 11ft.1in. |
| Max.speed: | 72 m.p.h. (6,500 ft.) |
| Endurance: | 3 hrs.15 mins. |
| Armament: | 1 Lewis machine-gun |
| Ceiling: | 11,000 ft. |

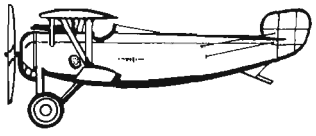
*Purpose: two-seat reconnaissance biplane. Known as "The Quirk", it was poor in quality and performance as a fighter but its aerial stability made it useful for reconnaissance work. The observer occupied the forward cockpit thus limiting the field of fire. Lieutenant W. Leefe Robinson, V.C. piloted a B.E. 2C when destroying a Schütte-Lanz airship (S.L. 11) over Cuffley in 1916.*

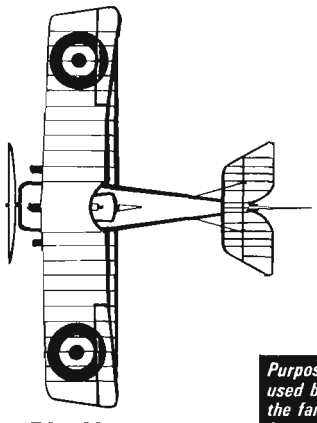
## FRENCH Nieuport 17 C.1

FRONT ELEVATION



SIDE ELEVATION





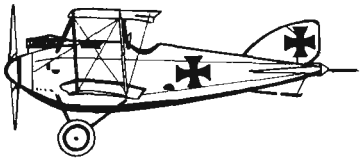
PLAN VIEW

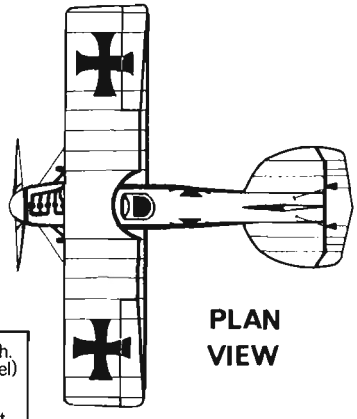
| | |
|---|---|
| Span: | 27ft.0ins. |
| Length: | 19ft.6ins. |
| Height: | 7ft.0ins. |
| Max speed: | 107 m.p.h. (6,500 ft.) |
| Endurance: | 2 hrs. |
| Armament: | 1 Lewis machine-gun |
| Ceiling: | 17,400 ft. |

*Purpose: single-seat scout. Widely used by French squadrons such as the famous "Stork" Group, it was a favourite of several British air "aces" among whom were Captain Albert Ball, V.C. and the Canadian Lt. Col. W. A. Bishop, V.C.*

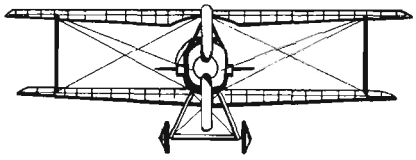
## GERMAN Albatros D-1

SIDE ELEVATION





PLAN VIEW



FRONT ELEVATION

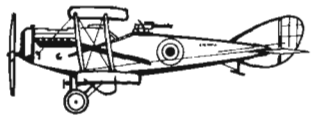
| | | | |
|---|---|---|---|
| Span (upper): | 28ft.3ins. | Max.speed: | 110 m.p.h. (sea level) |
| Span (lower): | 25ft.11ins. | Endurance: | 4 hrs. |
| Length: | 24ft.0ins. | Ceiling: | 12,000 ft. |
| Height: | 9ft.6ins. | | |
| Armament: | Twin Spandau machine-guns | | |

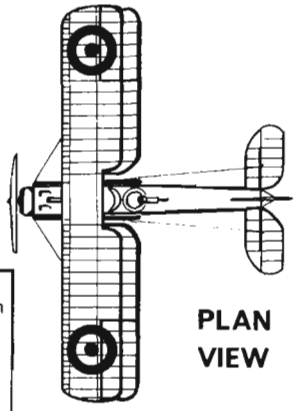
*Purpose: single-seat scout. First deliveries to squadrons commenced on 3 September 1916, and the famous German "ace" Oswald Boelcke shot down eleven Allied aircraft within a short period of 16 days. It was supreme during the winter of 1916-1917 and its twin synchronised guns feature became incorporated into the design of all subsequent German and Allied fighters.*

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## BRITISH Bristol F.2B

SIDE ELEVATION





PLAN VIEW

FRONT ELEVATION

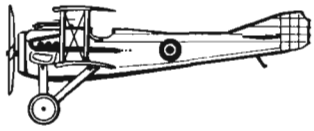


| | | | |
|---|---|---|---|
| Span: | 39ft.4ins. | Armament: | 1 Vickers machine-gun for the pilot |
| Length: | 26ft.2ins. | | 1 or 2 Lewis guns for the observer |
| Height: | 10ft.1in. | | Racks for light bombs |
| Max.speed: | 125 m.p.h. (sea level) | | |
| Endurance: | 3 hrs. | | |
| Ceiling: | 20,000 ft. | | |

*Purpose: two-seat fighter/reconnaissance aircraft. Possibly the finest all-round fighter of the Allies in the war, it was extremely manœuvrable and carried the advantage of a "sting in the tail". Known as the "Brisfit" or "Biff", it was a favourite of British "ace" Captain McKeever who won most of his thirty victories with this type.*

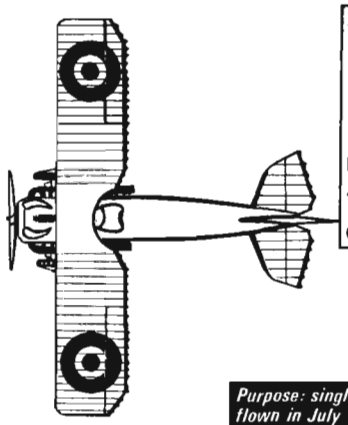
## FRENCH Spad S-7 C.1

SIDE ELEVATION





FRONT ELEVATION

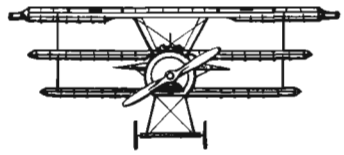


PLAN VIEW

| | |
|---|---|
| Span (upper): | 25ft.8ins |
| Span (lower): | 25ft.0ins |
| Length: | 20ft.3ins |
| Height: | 7ft.0ins |
| Max.speed: | 120m.p.h (6,500ft.) |
| Endurance: | 2½hrs. |
| Armament: | 1 Vickers machine-gun |
| Ceiling: | 17,500ft. |

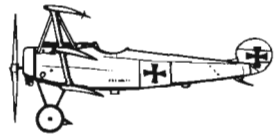
*Purpose: single-seat scout. First flown in July 1916, over 5,000 Spad S-7's were built in France, and 400 in England. The famous French "Stork" Group, of which the "ace" Georges Guynemer was a member, flew this type.*

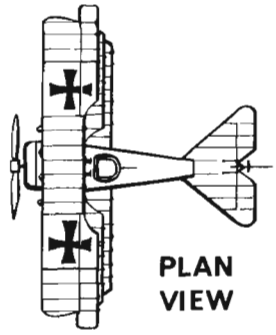
## GERMAN Fokker Dr-1 Triplane



FRONT ELEVATION

SIDE ELEVATION





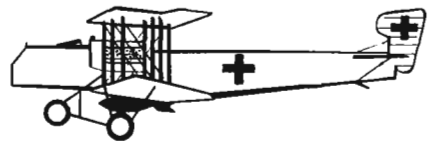
PLAN VIEW

| | |
|---|---|
| Span (upper): | 23ft.7ins. |
| Span (centre): | 20ft.6ins. |
| Span (lower): | 18ft.9ins. |
| Length: | 19ft.0ins. |
| Height: | 9ft.0ins. |
| Max.speed: | 122 m.p.h. at 8,000 ft. |
| Endurance: | 2hrs.30mins. |
| Armament: | Twin Spandau machine-guns |
| Ceiling: | 20,000 ft. |

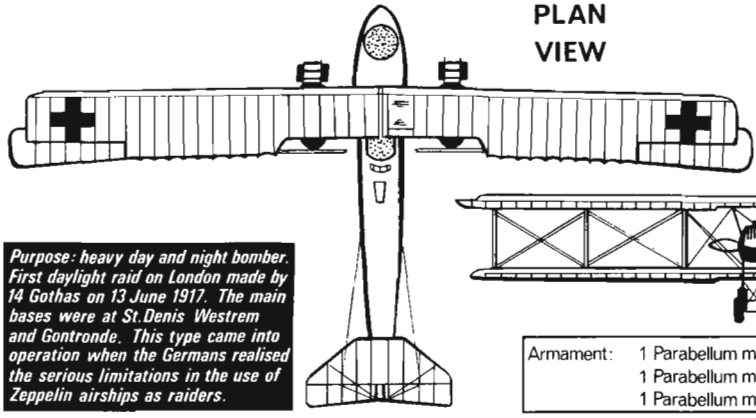
*Purpose: single-seat scout. First employed in August 1917, it was a favourite of German "aces" such as Manfred von Richthofen and Werner Voss and was the supreme German "dogfighter" of the war.*

# TWELVE IMPORTANT AIRCRAFT-continued

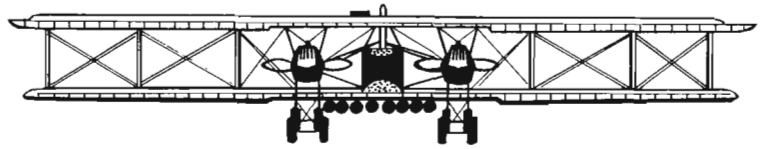
## GERMAN Gotha G-V



PLAN VIEW



SIDE ELEVATION



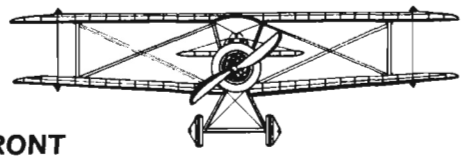
FRONT ELEVATION

| | |
|---|---|
| Span(upper): | 77ft.8ins. |
| Span(lower): | 71ft.10ins. |
| Length: | 40ft.9ins. |
| Max.speed: | 88m.p.h. (sea level) |
| Crew: | 3 |
| Ceiling: | 21,300ft. |

*Purpose: heavy day and night bomber. First daylight raid on London made by 14 Gothas on 13 June 1917. The main bases were at St.Denis Westrem and Gontronde. This type came into operation when the Germans realised the serious limitations in the use of Zeppelin airships as raiders.*

| | | | |
|---|---|---|---|
| Armament: | 1 Parabellum machine-gun: | front cockpit. | 12 H.E. bombs within fuselage. |
| | 1 Parabellum machine-gun: | rear cockpit. | 2 external bombs held in spring jaws. |
| | 1 Parabellum machine-gun: | belly defence. | |

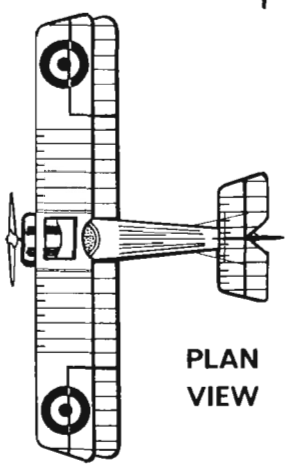
## BRITISH Sopwith F.1 "Camel"



FRONT ELEVATION



SIDE ELEVATION



PLAN VIEW

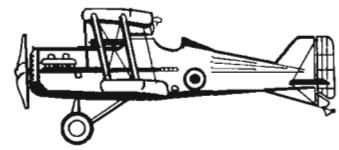
| | |
|---|---|
| Span: | 28ft.0ins. |
| Length: | 18ft.8ins. |
| Height: | 8ft.6ins. |
| Max.speed: | 119m.p.h. (6,500ft) |
| Endurance: | 2hrs.45mins. |
| Armament: | 2 Vickers machine-guns |
| Ceiling: | 24,000ft. |

*Purpose: single-seat scout. The "Camel" destroyed more enemy aeroplanes than any other type during the war. The most manœuvrable aircraft produced by either side, it spun rapidly, possessed sensitive elevator controls, and was capable of fast turns owing to the great gyroscopic force of the rotary motor coupled with the short fuselage.*

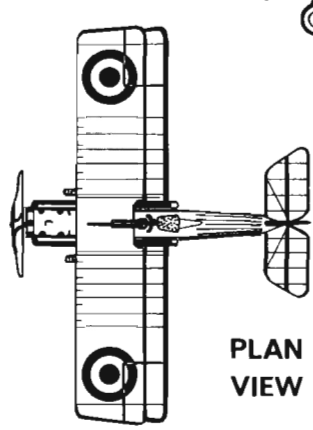
## BRITISH S.E.5a



FRONT ELEVATION



SIDE ELEVATION



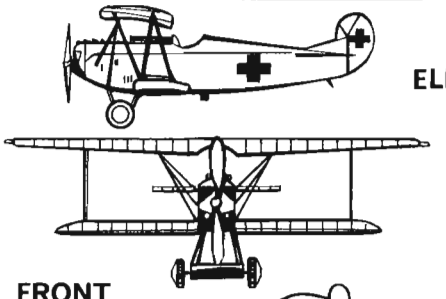
PLAN VIEW

| | |
|---|---|
| Span: | 28ft.0ins. |
| Length: | 21ft.4ins. |
| Height: | 9ft.5ins. |
| Max.speed: | 135m.p.h. (6,500ft) |
| Endurance: | 2hrs.30mins. |
| Armament: | 1 Vickers machine-gun above cowling |
| | 1 Lewis gun above centre section |
| Ceiling: | 20,000ft. |

*Purpose: single-seat scout. The S.E.5a was remarkable for its "dog-fighting" qualities. Although less manœuvrable than the Sopwith F.1 "Camel", it was notable for its marked stability as a gun-platform. It is to be noted that the famous "aces" Major E.Mannock,V.C. and Major J.T.B.McCudden,V.C. scored most of their victories in this scout.*

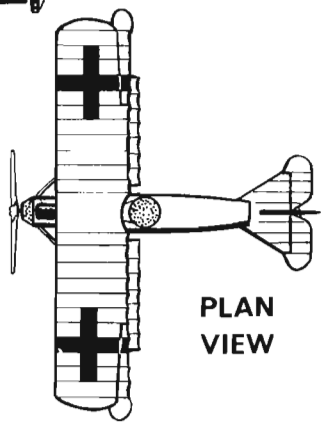
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## GERMAN Fokker D-VII



SIDE ELEVATION

FRONT ELEVATION

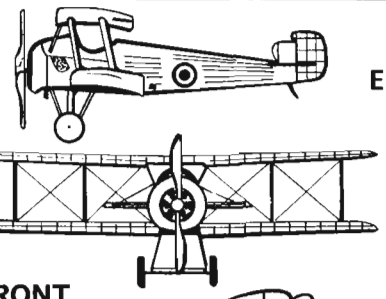


PLAN VIEW

| | |
|---|---|
| Span(upper): | 29ft.4ins. |
| Span(lower): | 22ft.10ins. |
| Length: | 23ft.0ins. |
| Height: | 9ft.3ins. |
| Max.speed: | 135m.p.h. (sea level) |
| Armament: | 2 Spandau machine-guns above cowling |
| Ceiling: | 21,000ft. |

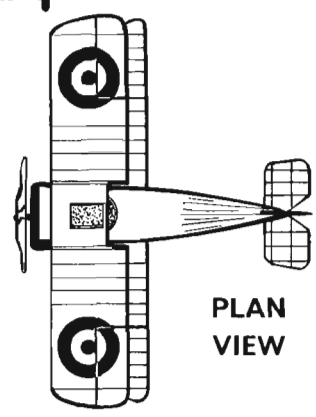
*Purpose: single-seat scout. Possibly the finest of all German fighters produced during the 1914-1918 war, it was credited with 565 victims in August 1918 alone. Hermann Goering (also of 1939-1945 war fame) flew this type. By the autumn of 1918 every German scout squadron on the Western Front was equipped with this aircraft.*

## BRITISH Sopwith 7F. I "Snipe"



SIDE ELEVATION

FRONT ELEVATION



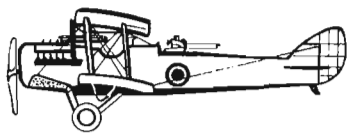
PLAN VIEW

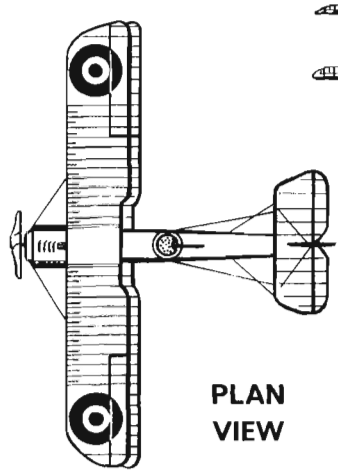
| | |
|---|---|
| Span: | 30ft.1ins. |
| Length. | 19ft.9ins. |
| Height: | 8ft.9ins. |
| Max speed: | 121m.p.h. (10,000ft) |
| Endurance: | 3hrs. |
| Armament: | 2 Vickers machine-guns above cowling |
| Ceiling: | 20,000ft. |

*Purpose: single-seat scout. Although operational during only the final three months of the war, it showed itself to be a first-class fighter. Among those who piloted this type was the famous Canadian "ace" Major W.G. Barker, V.C. In all 264 "Snipes" were built, 97 being used on the Western Front. The plan was to fully replace the "Camel" with this newest scout, but the Armistice closed its brief military career.*

## BRITISH De Havilland 4

SIDE ELEVATION





PLAN VIEW



FRONT ELEVATION

| | |
|---|---|
| Span: | 42ft.6ins. |
| Length: | 29ft.8ins. |
| Height: | 10ft.5ins. |
| Max.speed: | 137m.p.h.(6,500ft) |
| Endurance: | 4hrs. |
| Armament: | 1 Vickers machine-gun (pilot)<br>2 Lewis guns (observer)<br>Bomb racks below lower wings |
| Ceiling: | 23,500ft. |

*Purpose: two-seat day bomber. Despite its nickname of the "Flying Coffin", due to its reputation for catching fire in the air, this type was probably the finest day-bomber produced by any nation during the 1914-1918 war. Its ceiling of 23,500 ft. placed it out of the reach of most enemy scouts, and its high speed enabled it to outpace most German fighters.*

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* Prepared by Mrs Brenda Hall, Society of Indexers.

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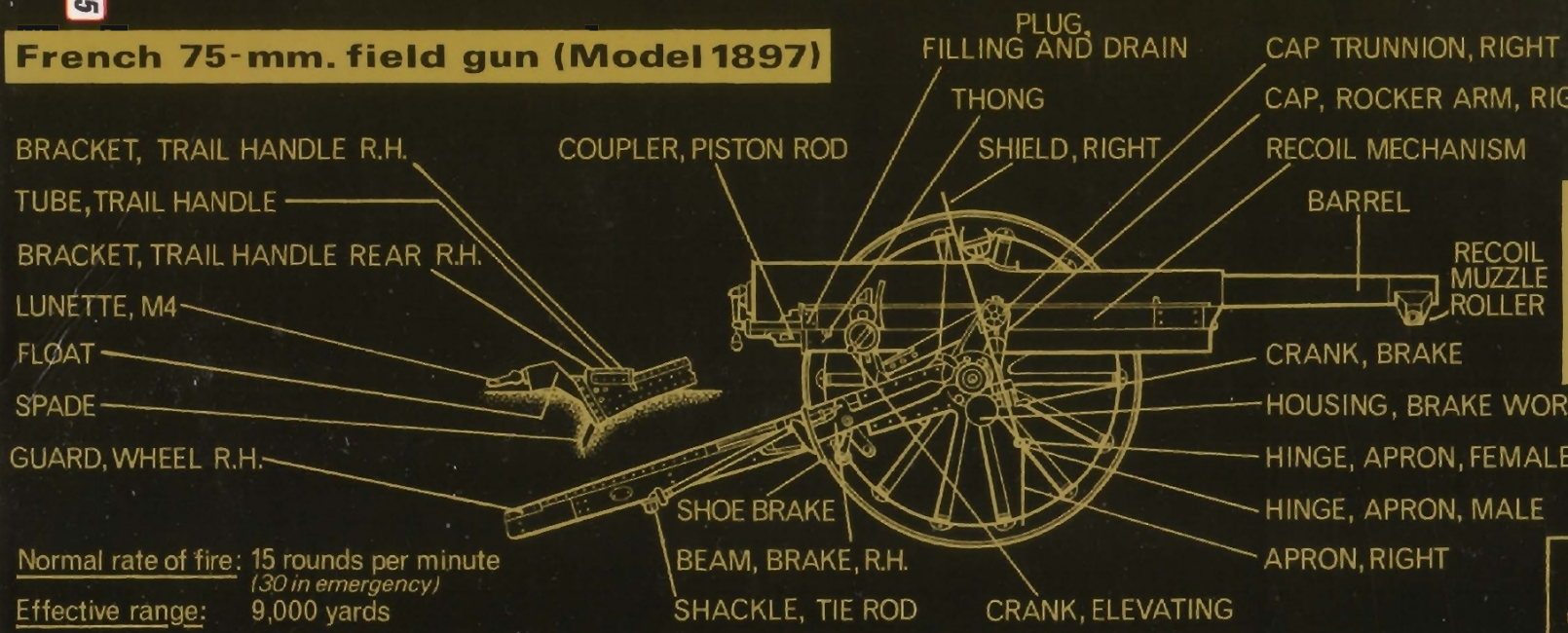
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£14.95

## French 75-mm. field gun (Model 1897)




Normal rate of fire: 15 rounds per minute *(30 in emergency)*

Effective range: 9,000 yards

*The buffer recoil action enabled the gun to be fired repeatedly, thus avoiding relaying.*

*In September 1891, a German engineer named Konrad Haussner patented a long-recoil hydraulic brake to ensure steadiness during rapid fire. The French Ordnance Factory Director at Puteaux copied this, construction finally being sanctioned in February 1893, but no royalties were paid to the inventor after 1894.*

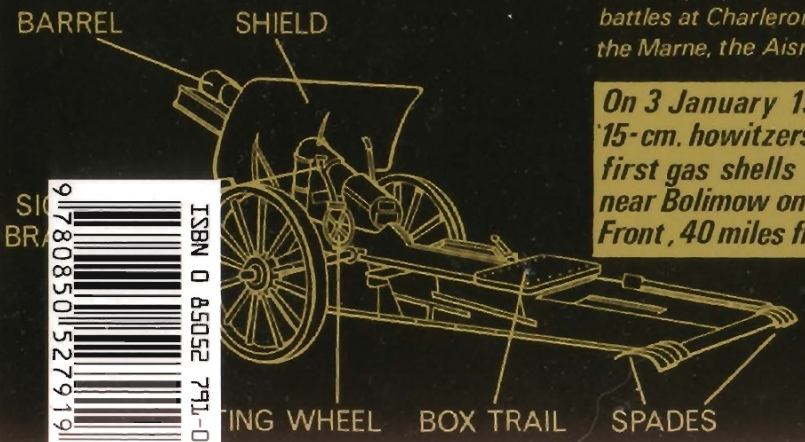
*By 1896 the German artillery had been rearmed with the 77-mm. field gun, a less-efficient weapon.*

*The majority of 75-mm.'s used during the campaigns of 1914 were of the 1897 version.*

## German 15-cm. field howitzer (Model 1913)

Normal rate of fire: 5 rounds per minute

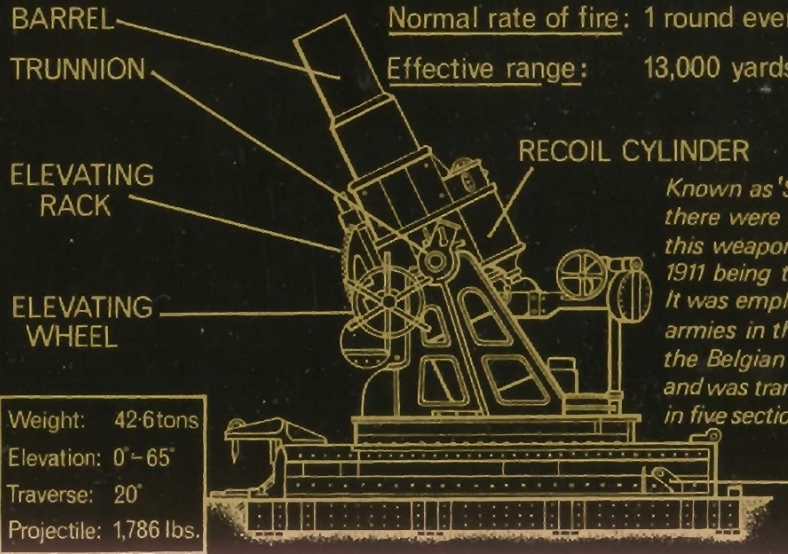
Effective range: 9,300 yards




*There were four models of this weapon. The 1913 version was employed during the 1914 battles at Charleroi, Dinant, Mons, the Marne, the Aisne, etc.*

***On 3 January 1915, German 15-cm. howitzers fired the first gas shells of the war near Bolimow on the Eastern Front, 40 miles from Warsaw.***

## Austrian 30-5-cm. howitzer (Model 1911)




Normal rate of fire: 1 round every 6 minutes

Effective range: 13,000 yards

Weight: 42·6 tons
Elevation: 0°–65°
Traverse: 20°
Projectile: 1,786 lbs.

*Known as 'Schlanke Emma', there were three models of this weapon, the version of 1911 being the most used. It was employed by German armies in the reduction of the Belgian forts in 1914, and was transported by road in five sections.*

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